

# PARTS AND OPERATION MANUAL



## Tandem Vibratory Roller T23, T26, T33

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# **WARNING**



## **CALIFORNIA — Proposition 65 Warning**

**Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.**

## **HERE'S HOW TO GET HELP**

*PLEASE HAVE THE MODEL AND SERIAL NUMBER  
ON-HAND WHEN CALLING*

### ***PARTS DEPARTMENT***

*800-427-1244 or 310-537-3700*

*FAX: 800-672-7877 or 310-637-3284*

### ***SERVICE DEPARTMENT/TECHNICAL ASSISTANCE***

*800-478-1244 or 310-537-3700*

*FAX: 310- 537-4259*

### ***WARRANTY DEPARTMENT***

*888-661-4279, or 310-661-4279*

*FAX: 310- 537-1173*

### ***MAIN***

*800-421-1244 or 310-537-3700*

*FAX: 310-537-3927*

# PARTS ORDERING PROCEDURES

- Dealer account number
- Dealer name and address
- Shipping address (if different than billing address)
- Return fax number
- Applicable model number
- Quantity, part number and description of each part
- Specify preferred method of shipment:
  - UPS Ground
  - UPS Second Day or Third Day\*
  - UPS Next Day\*
  - Federal Express Priority One (please provide us with your Federal Express account number)\*
  - Airborne Express\*
  - Truck or parcel post

*\*Normally shipped the same day the order is received, if prior to 2PM west coast time.*

## Earn Extra Discounts when you order by FAX!

All parts orders which include complete part numbers and are received by fax qualify for the following extra discounts:

<u>Number of line items ordered</u>	<u>Additional Discount</u>
1-9 items	3%
10+ items**	5%

### Get special freight allowances when you order 10 or more line items via FAX! \*\*

- UPS Ground Service at no charge for freight
- PS Third Day Service at one-half of actual freight cost

No other allowances on freight shipped by any other carrier.

\*\*Common nuts, bolts and washers (all items under \$1.00 list price) do not count towards the 10+ line items.

\*DISCOUNTS ARE SUBJECT TO CHANGE\*

Fax order discount and UPS special programs revised June 1, 1995

**Extra Fax Discount  
for Domestic USA  
Dealers Only**

**Up to 5%  
extra savings!**

**UPS  
Special**  
For faxed orders only

**Now! Direct TOLL-FREE access  
to our Parts Department!**

Toll-free nationwide:

800-421-1244

Toll-free FAX:

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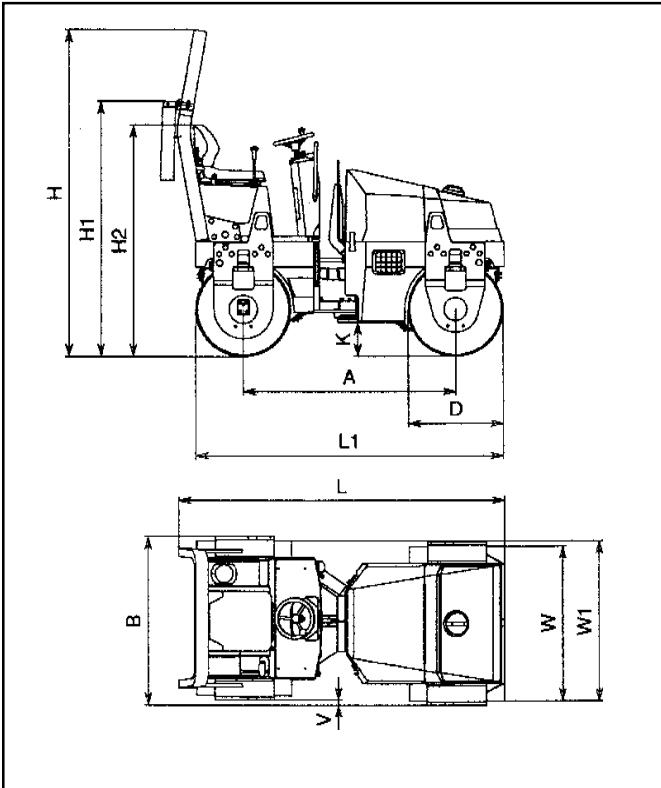
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*NOTE: Specification and part number are subject to change without notice.*

# SPECIFICATIONS



	<b>T23</b>	<b>T26</b>	<b>T33</b>
L .....	99.80"	99.80"	99.80"
L1 .....	94.10"	94.10"	94.10"
B .....	43.50"	51.58"	55.51"
W .....	39.37"	47.24"	51.18"
W1 .....	40.95"	48.82"	52.76"
H .....	98.43"	98.43"	98.43"
H1 .....	78.35"	78.35"	78.35"
H2 .....	72.44"	72.44"	72.44"
D .....	29.13"	29.13"	29.13"
A .....	64.96"	64.96"	64.96"
K .....	10.63"	10.63"	10.63"
V .....	1.57"	1.57"	1.57"

Model	T-23	T-26	T-33
Class	2.5 ton	3 ton	4 ton
Centrifugal Force, lbs. (kg) @ 2400 rpm	4860 (2129)	6215 (2828)	7119 (3239)
Centrifugal Force, lbs. (kg) @ 2700 rpm	6328 (2879)	8136 (3702)	9266 (4216)
Frequency, vpm, @ 2400 rpm	3300		
Frequency, vpm, @ 2700 rpm	3780		
Amplitude, in. (mm)	.020 (.5)		
Travel Speed, mph (kph)	0 to 6.2 (0 to 10)		
Engine	Yanmar 3 cylinder water-cooled diesel		
Engine Model	3TNE88-AMM		
Engine HP; rpm	29 HP @ 2400 rpm 33 HP @ 2700 rpm		
Turning Radius, inside, in. (mm)	92.5 (2350)	88.6 (2250)	86.6 (2200)
Gradeability w/w-o vib., %	30/40		
Water Tank Capacity, gal. (l)	58.1 (220)		
Fuel Tank Capacity, gal. (l)	8.5 (32)		
Hydraulic Tank Capacity, gal. (l)	12.7 (48)		
Overall Height w/ROPS, in. (mm)	100.4 (2550)		
Overall Height w/ Folded ROPS, in. (mm)	78.3 (1990)		
Overall Length w/ROPS, in. (mm)	99.6 (1530)		
Ground Clearance, in. (mm)	10.8 (275)		
Drum Width, in. (mm)	39.4 (1000)	47.2 (1200)	51.2 (1300)
Overall Width, in. (mm)	43.8 (1115)	51.7 (1320)	55.9 (1420)
Maximum Rolling Width (offset), in. (mm)	40.9 (1040)	48.8 (1240)	52.8 (1340)
Drum Offset, in. (mm)	1.6 (40)		
Drum Diameter, in. (mm)	29.1 (740)		
Drum Thickness, in. (mm)	0.51 (13)	0.55 (14)	0.55 (14)
Curb Clearance, in. (mm)	19 (483)		
Operating Weight, lbs. (kg)	5204 (2360)	5887 (2670)	7475 (3390)



# EXPLANATION OF CODE IN REMARK COLUMN

How to read the marks and remarks used in this parts book.

## Section 1: Items Found In the “Remarks” Column

Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

Model Number-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

## Section 2: Items Found In the “Remarks” Column

Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

Model Number-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

## Section 3: Items Found In the “Items Number” Column

All parts with same symbol in the number column, \*, #, +, %, or ■, belong to the same assembly or kit.

Note: If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

### NOTE

If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

### NOTE

*The contents of this catalog are subject to change without notice.*

# SUGGESTED SPARE PARTS

T23, T26, T33 w/YANMAR 3TNE88 DIESEL ENGINE

## 1 to 3 Units

Qty.	P/N	Description
5 .....	AVL14607 .....	KEY IGNITION SWITCH
5 .....	AVL921970 .....	KEY FUEL CAP
6 .....	12142212570 .....	FILTER AIR INNER
6 .....	12142012511 .....	FILTER AIR OUTER
6 .....	12915035151 .....	FILTER OIL
6 .....	12910055650 .....	FILTER FUEL
3 .....	AVL921710 .....	FILTER WATER
3 .....	AVL921198 .....	FILTER SUCTION
3 .....	AVL824900 .....	SCREEN WATER TANK

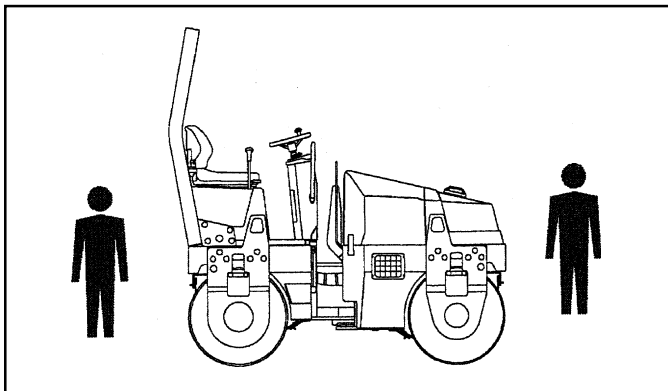
### NOTE

Part numbers on this Suggested Spare Parts List may supercede/replace the P/N shown in the text pages of this book.

# SAFETY INSTRUCTIONS

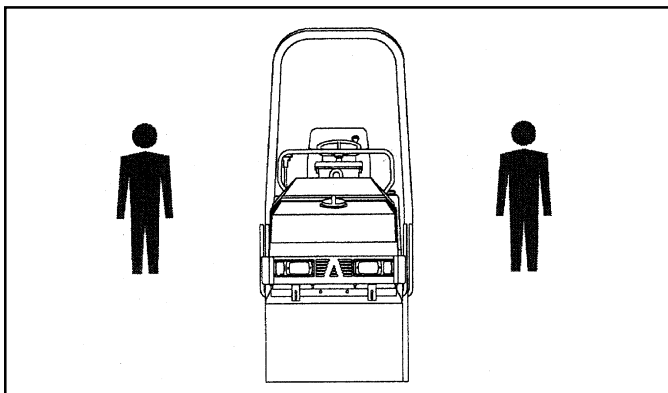
## Starting the machine

Start up the roller from the driver seat only.



## Operating the machine

When the roller is being operated there must be **no one in front or behind the roller.**

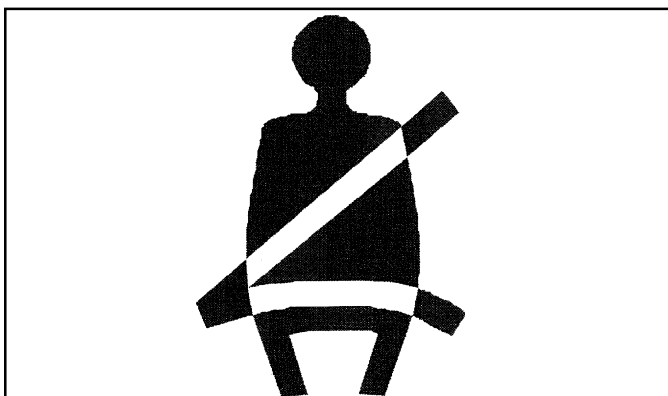


## Operating the machine

Any persons in the vicinity of the roller, while it is being operated, **must maintain a safe minimum distance of 3 feet (1m) for their own safety.**

## Seatbelt

The driver must always wear the seatbelt.



## WARNING!

**KEEP YOUR DISTANCE FROM SIDE-SLOPES AND ROCKS!  
THE MACHINE CAN EASILY SLIDE OFF SLOPES! DO NOT DRIVE OVER ROCKS!**

## DANGER OF OVERTURNING!

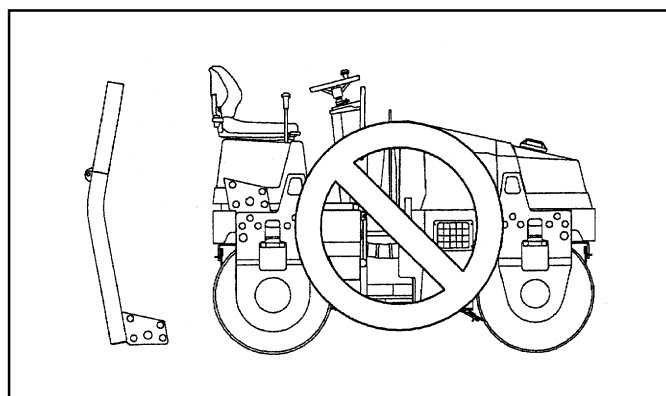
Be aware of the hazards stated below:

1. Flat surfaces may not have uniform soil density
2. Hollow spaces or rocks might be below the surface
3. Clay ground can be slippery when it is wet
4. Danger of sliding sideways is higher, when vibrating
5. Sharp steering maneuvers (turns), near side slopes can increase the danger of overturning
6. Central articulated machines are more dangerous near side-slopes during sharp steering maneuvers (turns).

## Rollover protection structure (R O P S)

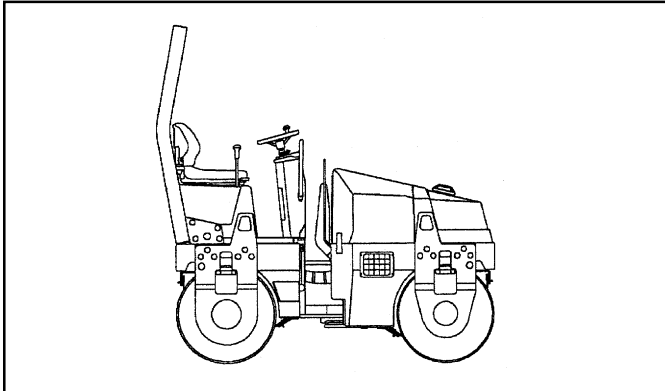
Please check the following:

- The machine frame should not be bent or cracked around the ROPS bolt on area.
- There are no hairline cracks or open cracks.
- All screw connections are correctly tightened (check correct torque).
- Bolts and nuts must be undamaged.
- ROPS must be folded up when operating machine.

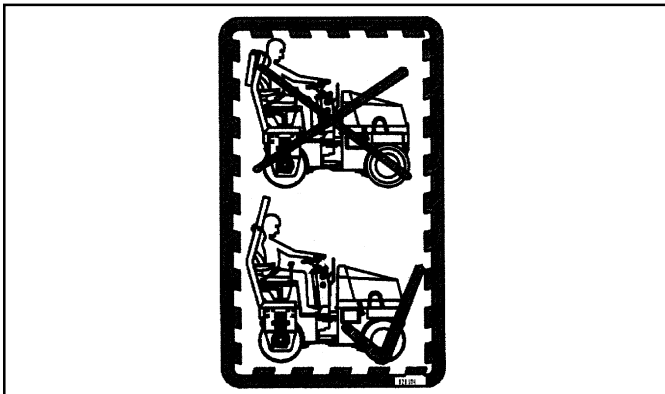


# SAFETY INSTRUCTIONS

No modifications may be made on the ROPS without authorization from the manufacturer!



Never operate the machine with the ROPS in the tilted position.



Safety stickers on the machine

- Keep safety stickers and safety plates clean and readable.
- All instructions have to be followed.
- Damaged or incomplete stickers must be replaced immediately.



## Noise level:

The following noise levels have been measured according to the CE regulations 98/68/EWG,

- Engine at nominal RPM
- Microphone fixed at 1,2m height

Measurement conditions:

- Hard ground, no snow, dry within 20 m., no noise reflecting objects.
- Wind noise must be below 10dB(A) of the measured machine noise values.
- Noise level indications according to annex 1, Chapter 1.7.4 f of the CE machines specifications

Noise at driver's ear: **77.5 dB(A)**

Constant noise level at 7m distance: **66.1 dB(A)**

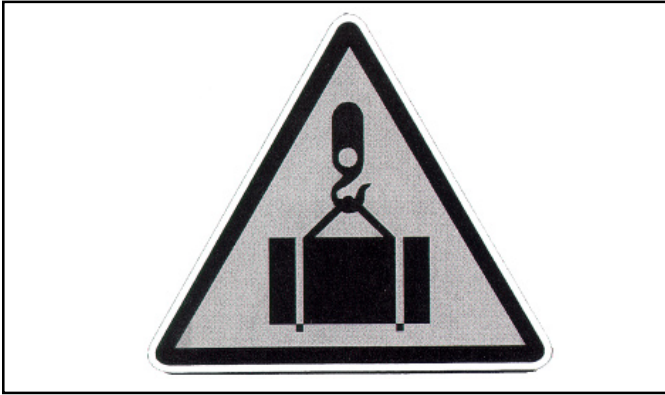


While working on the machine or on moving parts of the machine, never wear a scarf, tie, bracelet or loose clothing. Should the machine catch those items, severe injuries could be caused.



# SAFETY INSTRUCTIONS

Never work under a machine which is held by a crane or by a jack. Never stand beneath a machine that has been lifted. Always follow the instructions given in this manual.



**Signs / warnings**

## **Danger of intoxication!**

Never let the machine run in a closed room.

Battery gases are explosive.

Keep the battery away from fire, flames and sparks.

To control the acid level of the battery, use a torch. Never check the battery charge by connecting the two poles with a metallic tool. Take an acid control instrument or use a voltmeter.

Always disconnect the ground (-) first and always re-connect it last.



**Attention: Danger of burning**

## **DANGER OF EYE INJURY!**

The sulfuric acid in the electrolyte of the battery is poisonous and aggressive. It can burn holes into clothes. A squirt of this acid in the eyes can lead to blindness.

Re-charging safety instructions:

- Recharge battery only in well ventilated rooms.
- Wear eye protection and gloves.
- Do avoid breathing in gases and fumes.
- Refill without splashing the acid.
- Start by means of a starter /second battery has to be done following the instructions.

To take off the water cooler cover on a stopped engine, first loosen the cover slightly to release the pressure. Remove the cover only after the pressure is released.



**WARNING: Never remove the radiator cover on a running engine!**



## Operating the rollers

1. Only reliable and qualified persons, at least 18 years old are to operate rollers.
2. The manufacturer's operating and security instructions are to be observed.

## Running

3. Rollers are only to be operated with all the protection facilities.
4. Before starting work, steering and brakes must be checked. The machine should not be run if any defects are noticed.
5. Before beginning a working shift the driver must check the effectiveness of operation and the security installation and protection facilities.
6. If defects on security installations or any other defects are noticed that affect the safe operation of the roller, the supervisor is to be informed immediately.
7. Operating the roller must be stopped if defects endanger operating security.
8. The roller must only be operated from the driver's seat.
9. Servicing or maintenance of the roller must be done only while the roller is standing still and secured against rolling away. When filling up the fuel tank, the motor is to be switched off.
10. Rollers may not be driven downhill out of gear, (free-wheeling) use the hydrostatic transmission to control the speed of the roller.
11. Especially on slopes, rollers have to be driven or parked in such a way that they cannot overturn.
12. The driver has to keep the driver's platform and tread steps free of obstructions, grease, dirt, ice, etc.
13. Visibility in the driving and working area must not be restricted.
14. Before leaving the driver's stand, the parking brake must be engaged. If your roller has a hydrostatic drive, the reversing control lever is to be put in "0" position.
15. Before leaving the roller, the driver has to turn off the engine. The roller has to be secured against unauthorized operation and against rolling off.
16. Parked rollers representing an obstacle have to be secured by obvious measures.

17. Valid for all rollers: It is possible that the allowable sound level of 90 dB(A) can be exceeded on the above stated rollers. Due to the regulations for prevention of accident "noise" (VBG 121), machine operators, or persons who are in immediate environment of the machine must wear ear defenders, if the sound level reaches or exceeds an estimated 90 dB(A). . . . AND WITH CABINS (optional)
18. While driving, the doors must be closed.

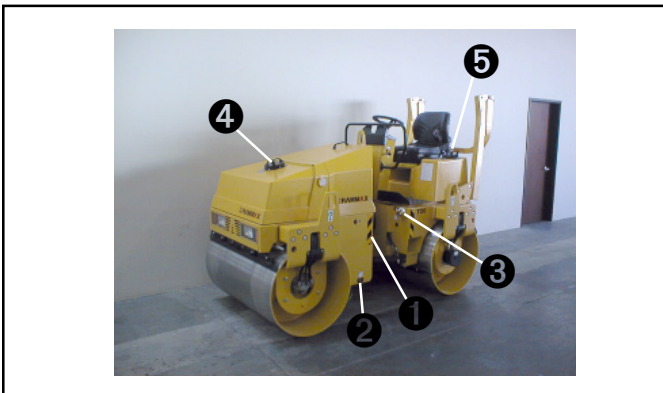
## Maintenance

19. Maintenance and repair work may only be done while the transmission is not in operation. Only exception: if work cannot be carried out without drive engaged.
20. Before working on hydraulic tubes and hoses, pressure in the hydraulic system has to be released.
21. Before working on electrical system of the machine, the battery must be disconnected. It must be either removed or covered with isolating material. This is not valid for repairs where electrical power is necessary.
22. After the termination of maintenance and repair work, protection facilities have to be reinstalled as prescribed.

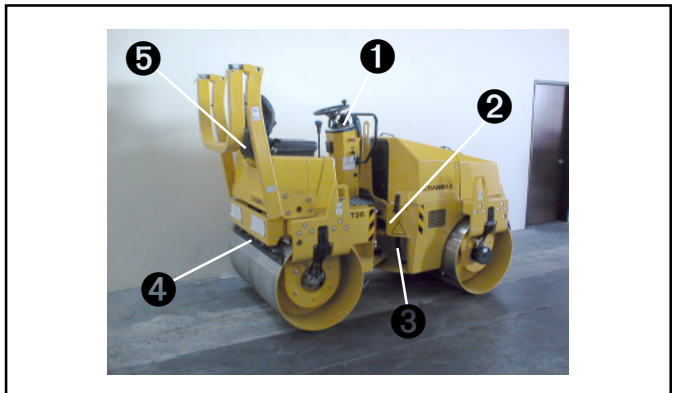
## General Layout

- 1) Engine oil drain plug
- 2) Hydraulic oil drain plug
- 3) Fuel filler cap
- 4) Cap, front water tank
- 5) Cap, rear water tank

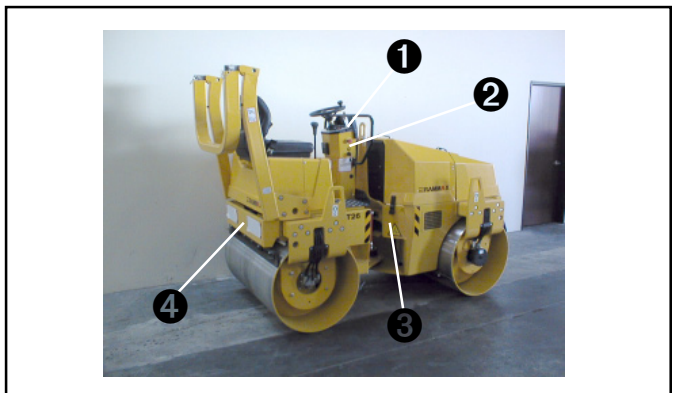
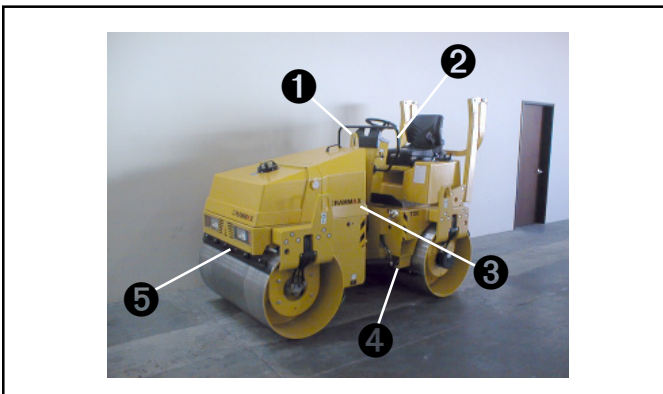
- 1) Drive lever
- 2) Articulation lock
- 3) Sight glass, hydraulic oil level
- 4) Rear sprinkler tube, scraper
- 5) Tool box

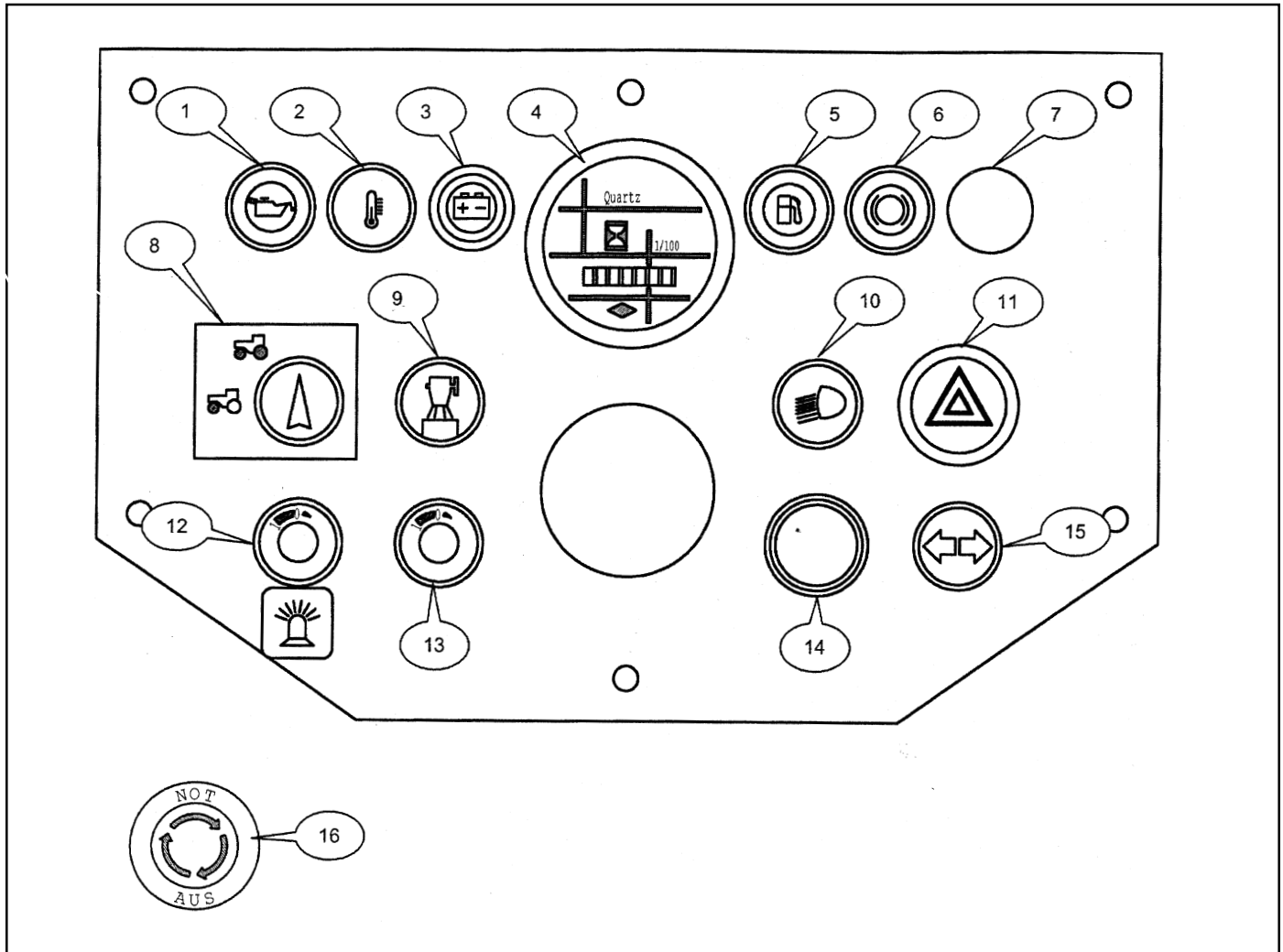


- 1) Central lifting hook
- 2) Accelerator lever
- 3) Engine and hydraulic oil filters
- 4) Fuel drain plug
- 5) Front sprinkler tube, scraper



- 1) Emergency stop switch
- 2) Ignition switch
- 3) Machine plate
- 4) Rear water filter, sprinkling system





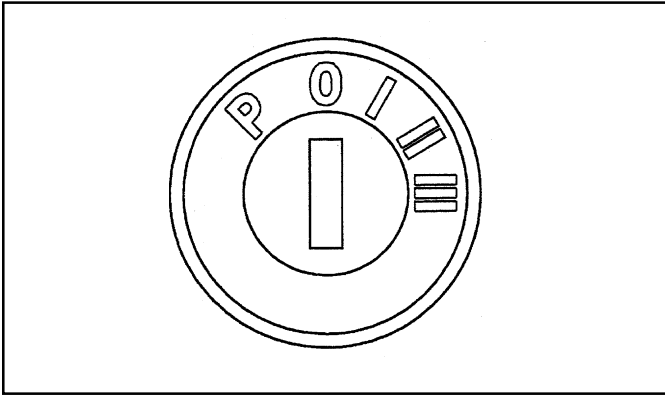
- |  |  |
|--|--|
| 1) Warning light – engine oil pressure                 | 10) Light switch   |
| 2) Warning light – cooling water temperature           | 0 – off  |
| 3) Warning light – charging system                     | 1 – parking lights   |
| 4) Hour meter  | 2 – head lights  |
| 5) Warning light – low fuel level                      | 11) Hazard warning button                                  |
| 6) Warning light – charge / brake pressure             | 12) Rotary warning beacon (optional equipment)             |
| 7) Spare   | 13) Working lamp (optional equipment)                      |
| 8) Selector switch – vibration front or front and back | 14) Horn button  |
| 9) Sprinkler switch                                    | 15) Indicator left/right (located on right side of column) |

16) Emergency stop switch

## Engine starting

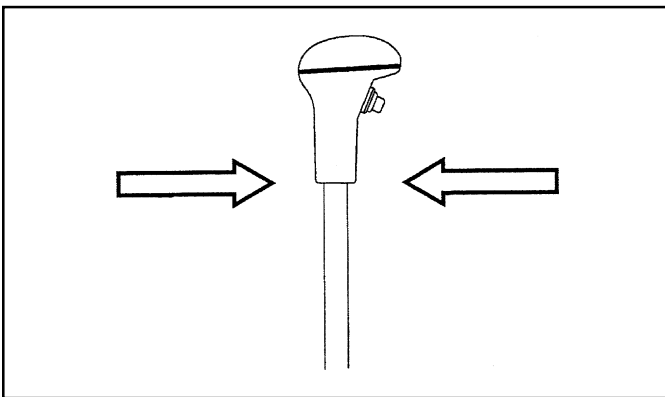
### 1. Ignition lock

- P ..... PARK
- 0 ..... OFF
- I ..... Ignition
- II ..... Pre-heat



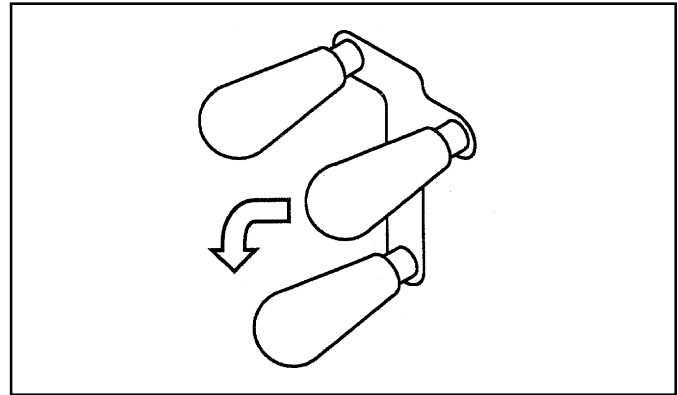
III ..... Start

### 2. Reversing lever



Bring into 0 position

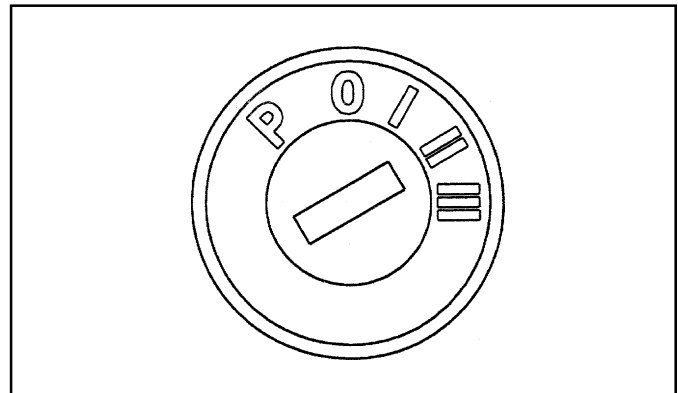
### 3. Speed adjustment lever



Move the accelerator lever to the idle position (moving downwards)

### 4. Ignition switch

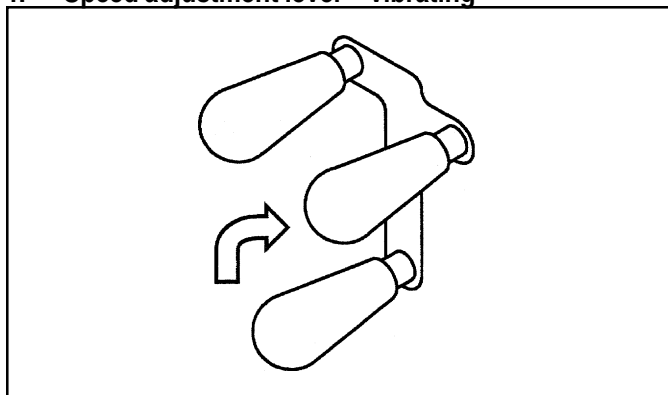
Turn clockwise to position III. When the outside temperature is below 0° C, first turn the ignition switch to position II and



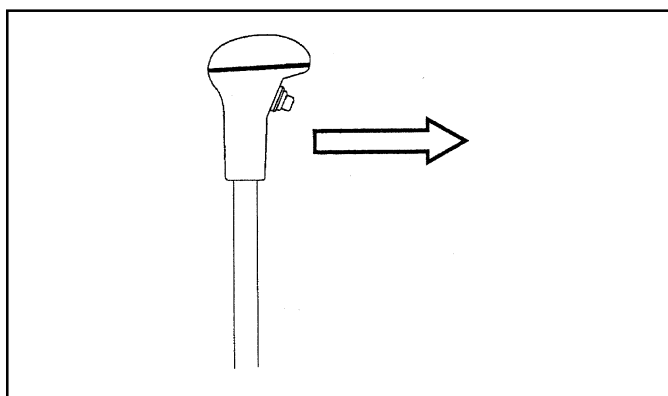
wait until the preheat indicator on the instrument panel goes off, then continue turning the switch to position III for starting.

## Driving / operating the machine

### 1. Speed adjustment lever – vibrating

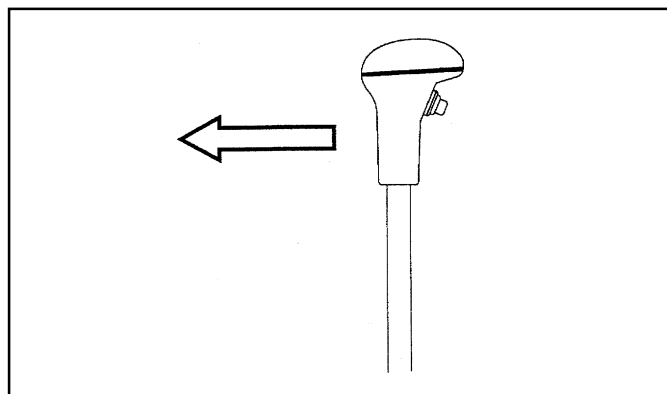


Pull the lever up and then towards the driver's seat. Lock it in the 2400-rpm position.



### 2. Forward travel

Move the travel lever forward slowly.



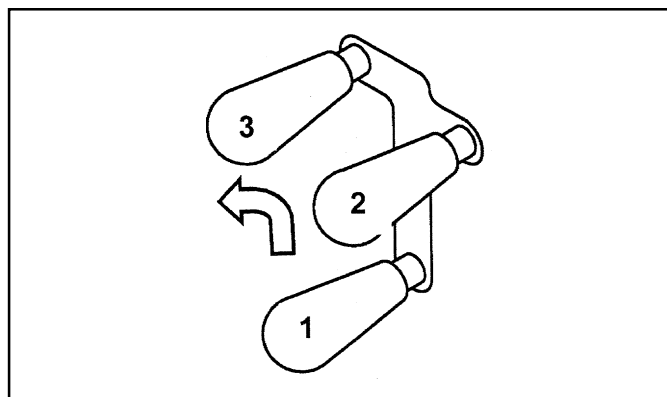
### 3. Reverse travel

Move the travel lever back slowly.

### 4. Speed adjustment lever – travelling

To move the machine from one site to another one, put the accelerator lever into the 2700 rpm position (pull it up and push it forward).

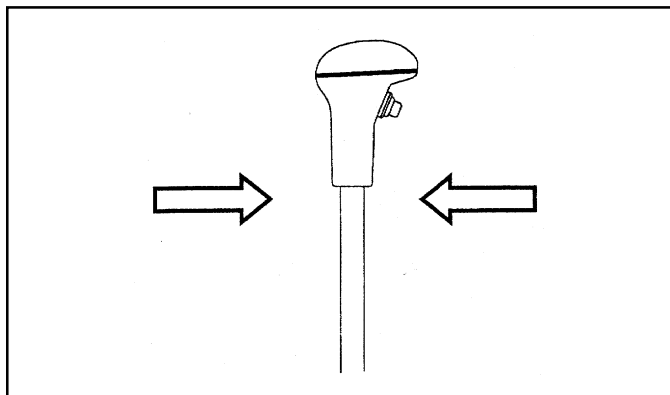
1 – Idling speed



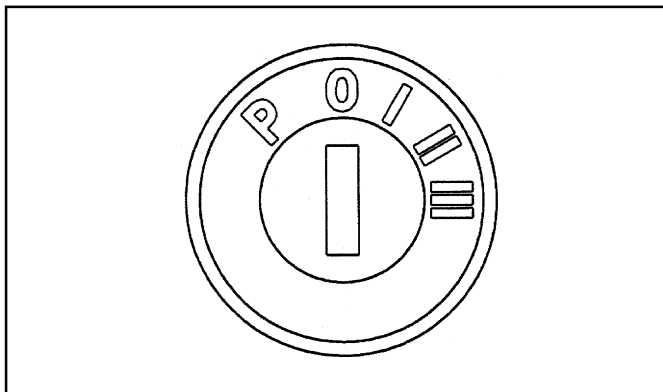
2 – Working speed (2400 rpm)

3 – Transporting speed (2700 rpm)

## Service brake / engine shut-down



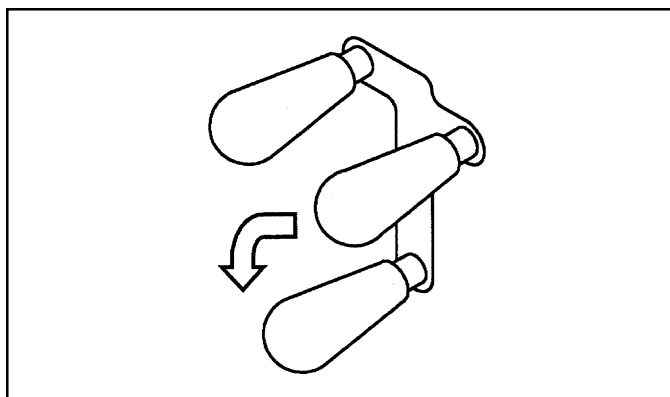
Move the drive lever slowly into neutral (0) position as shown above.



## Application of service brake

Move the drive lever slowly into neutral (0) position. The machine is automatically braked by the hydrostatic transmission.

## Engine shut-down

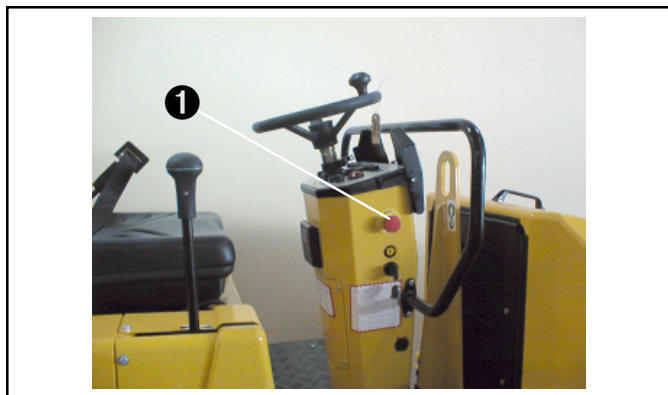


Move the accelerator lever downward to the idling position.

## Engine shut-down

Turn the ignition key counter-clockwise to the (0) position.

## Emergency stop switch



## Location of EMERGENCY STOP BUTTON

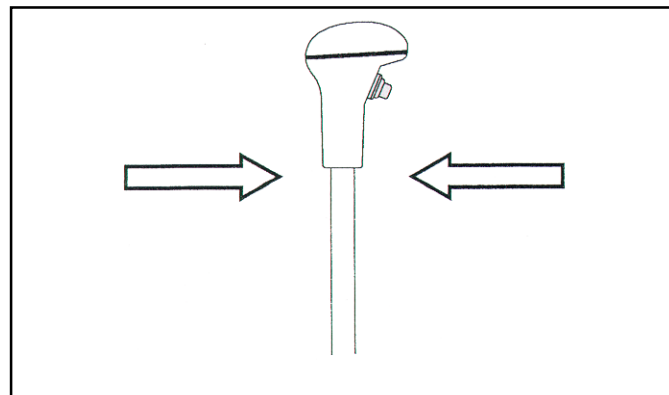
The EMERGENCY STOP BUTTON (1) is located on the R.H.



side of the steering column.

## Emergency stop

In case of an emergency, bring the machine to a standstill by



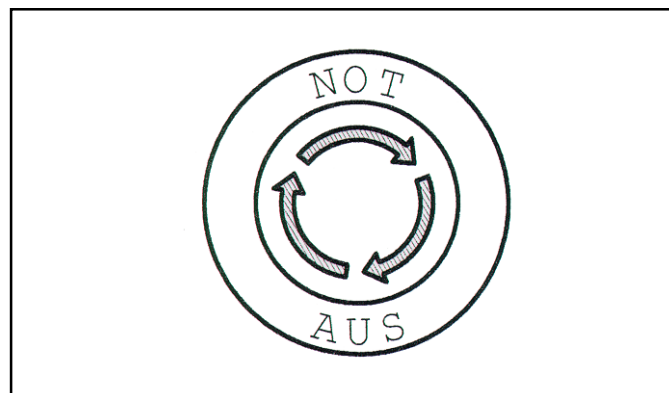
pressing the EMERGENCY STOP BUTTON.

## Release the emergency stop

To release the emergency stop, the drive lever has to be brought to neutral (0) position.

## Release the emergency stop

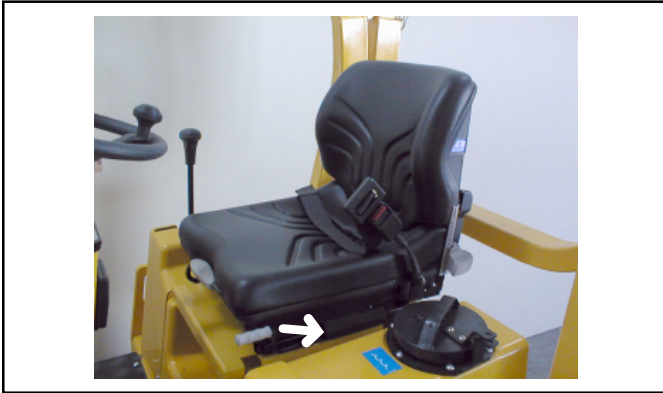
Turn the emergency stop button slightly in the direction indicated by the arrows until it snaps out.



## Driver's seat

### 1. Forward/backward adjustment

Pull the longitudinal adjustment lever outward and set the seat to the desired position.



### 2. Adjustment of back rest

Pull the backrest adjustment lever upwards and set the backrest to the desired position.



### 3. Weight adjustment

Push the lever (1) **downward** to the desired weight adjustment (9 weight steps from 50 kg to 130 kg available). To decrease the weight adjustment, push the lever fully to the bottom against the stop: The lever comes back automatically to the 50 kg position.

**Never pull the adjustment lever upwards!**



#### Please note!

The driver seat must not be adjusted while the vehicle is in motion: **DANGER OF ACCIDENT!**

This driver seat helps to keep you healthy. Therefore appropriate care and maintenance is recommended.

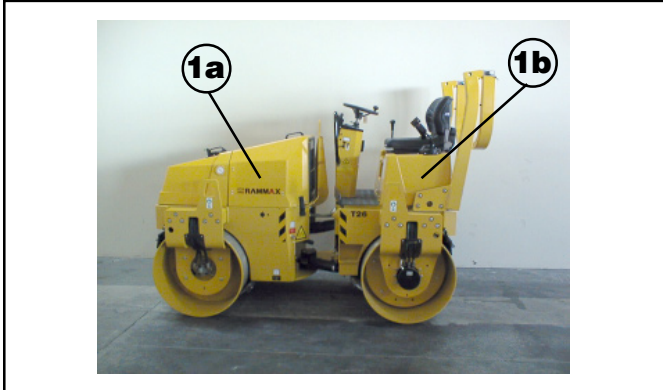




## Sprinkler system

### 1. Water tank

Fill water tank (1a + 1b).



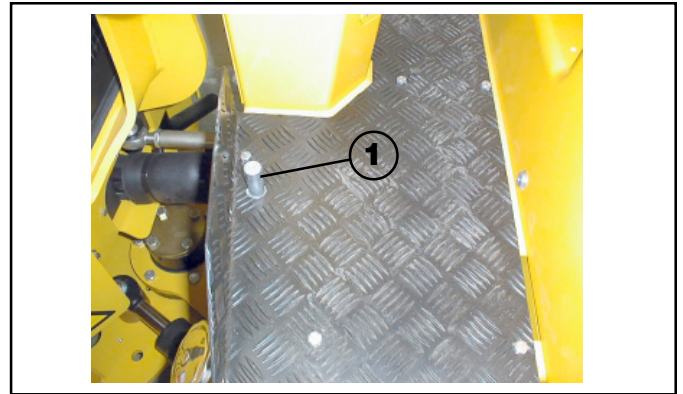
### 2. Turn sprinkler on and off

Put the sprinkler system on and off by turning the corresponding switch.



## SPRINKLER WITH FOOT OPERATED SWITCH

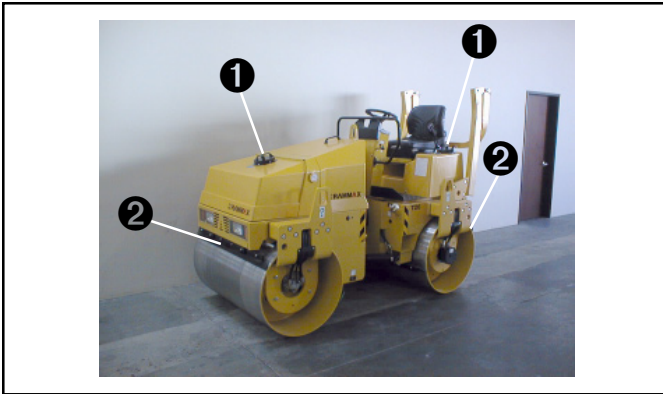
This function is possible if the ignition is turned on. If you need water, push the switch (1) and the sprinkling system works. If you release the switch (1), the sprinkling system will stop. The sprinkler foot switch will work only if the main sprinkler switch is turned off.



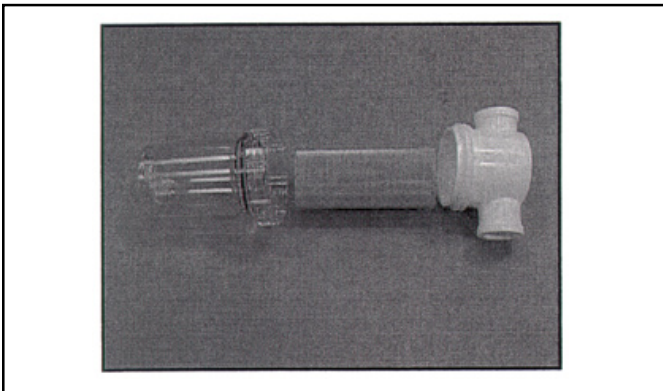
## Water tank, sprinkler, frost warning

### Cleaning

If necessary, clean the water tanks (1) with the sieves, the front and rear sprinkler tubes with the sprinkler nozzles (2) and . . .



.....the water filters, located under the front and the back grill.



## Frost Warning

In the event of frost warning, completely empty the sprinkling system and remove the filter sieve from the housing. Please proceed as follows:

- 1) Remove filter housing.
- 2) Drain water.
- 3) Switch on sprinkler system to drain remaining water in the tubes.

## Single / double vibration

### 1. Switch on vibration

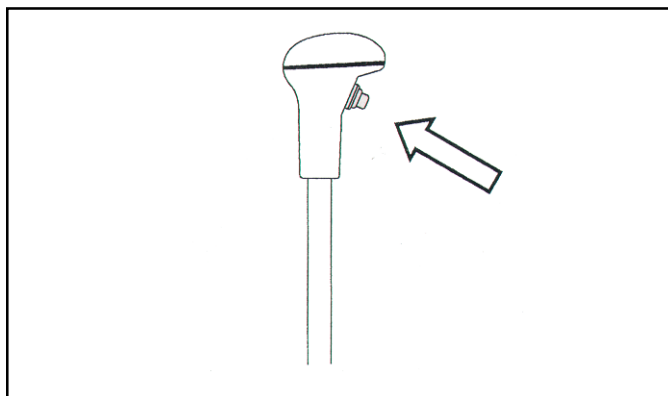
Press shortly the vibration switch on the drive lever handle.

### 2. Switch off the vibration

Again press shortly the vibration switch on the driver lever handle.

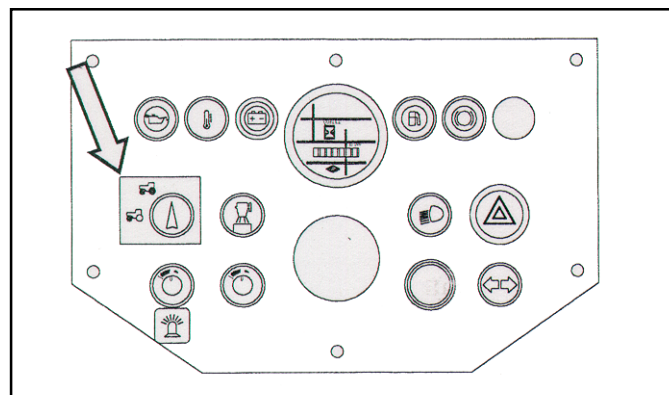
## Attention

Only engage the vibration when the throttle lever is set to a working speed.



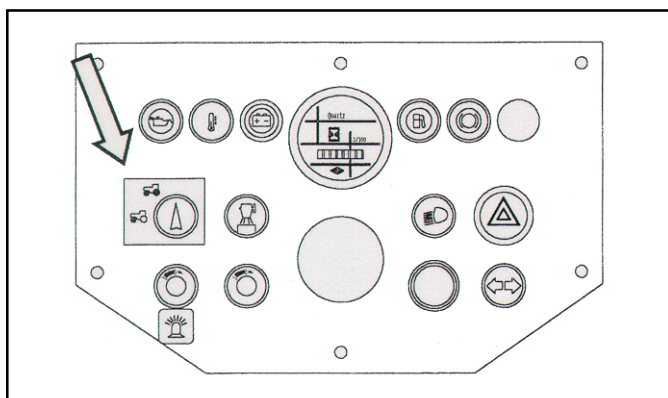
## Vibration at the front only

To put on the front vibration only, turn the vibration selector switch counter-clockwise.



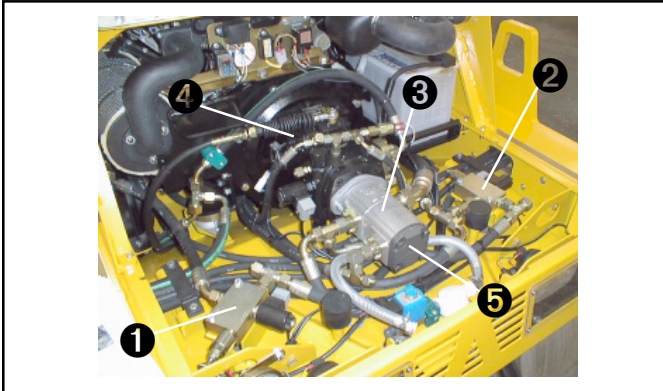
## Vibration front and rear

To put on the front and rear vibration, turn the vibration selector switch clockwise.

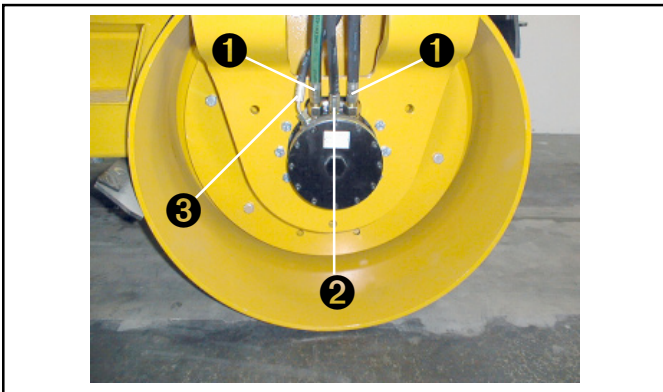


## Hydraulic components

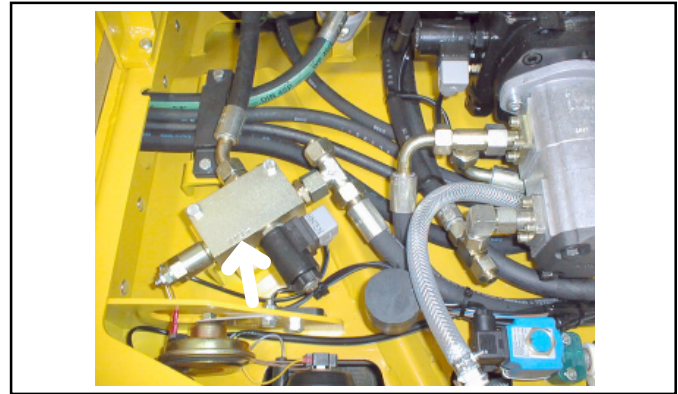
- 1) Vibration valve rear
- 2) Vibration valve front
- 3) Vibration pump
- 4) Drive pump
- 5) Steering and charge pump



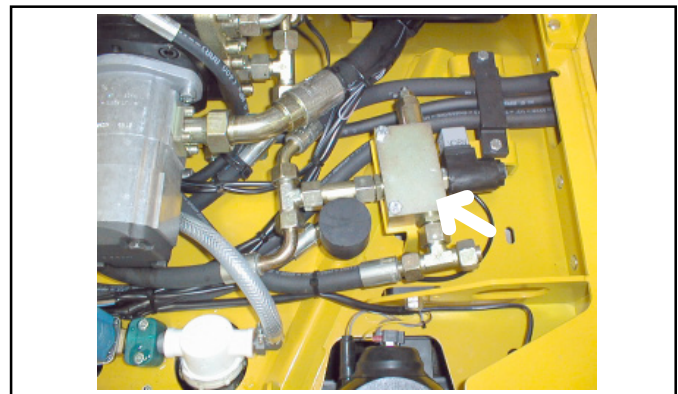
- 1) Drive circuit, ports A & B
- 2) Leak oil hose
- 3) Brake pressure hose



Vibration control valve rear



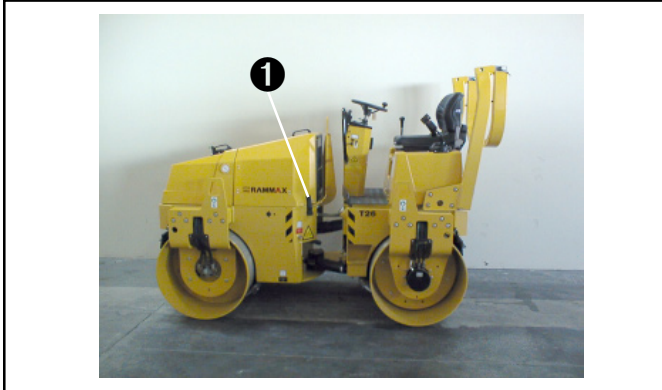
Vibration control valve front



## Open engine hood

### 1. Bonnet fastener

Release fasteners (1) on both sides of machine.



### 2. Hood

Open engine hood.

#### Attention:

Guide the engine hood carefully until the retaining cable is fully stretched. Do not slam it open.



#### Warning!

Do not open the engine hood before the engine is stopped. **A Danger of injury to your hands or fingers exists!**

#### Warning!

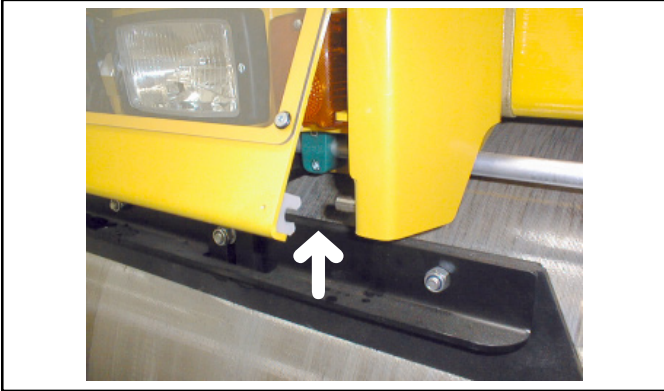
Work on the engine only when the engine has cooled down. **Danger of being burned!**

#### Fuses

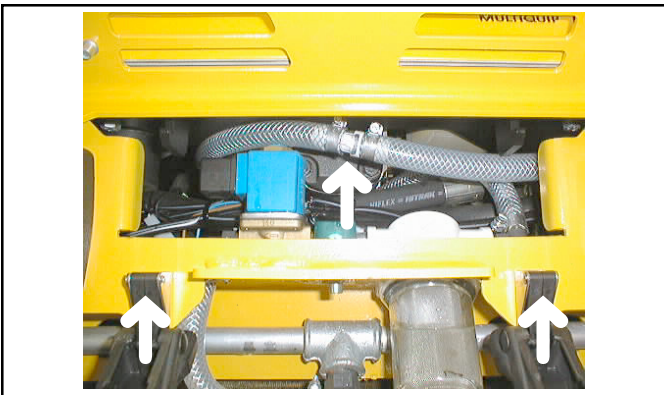


## Open front water tank

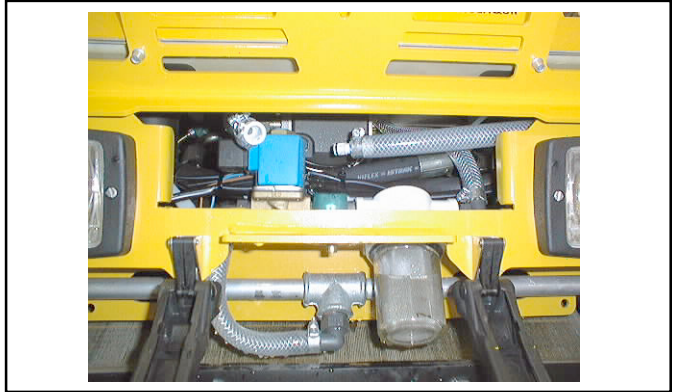
1. Pull front grill open.



2. Disconnect the water hose (quick coupler).
3. Release both rubber latches.



If rubber latches are opened and the water hose is disconnected



The water tank can be lifted up and tilted back.



## Electrical components – engine

The electrical components for the engine are located at the front end of the engine, just above the drive pump.

- 1) Relay (K31), stop solenoid.
- 2) Timer (K30) for relay of stop solenoid.
- 3) Starter relay (K14), 70A.

## Fuses

- 4 — F1, stop solenoid pulling coil (30A).
- 5 — F2 stop solenoid holding coil (7.5A).
- 6 — F3, vibration (10A).
- 7 — F4, horn, oil cooler fan, water pump (15A).

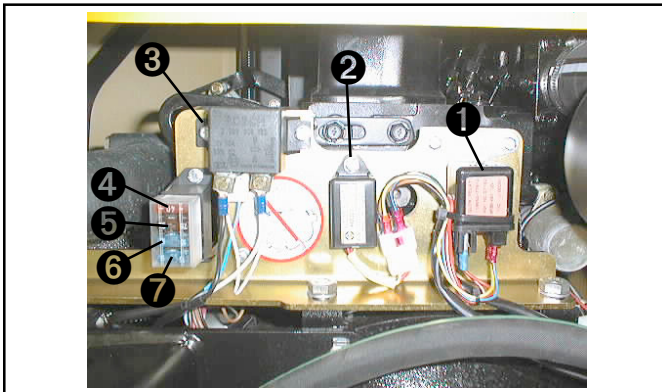
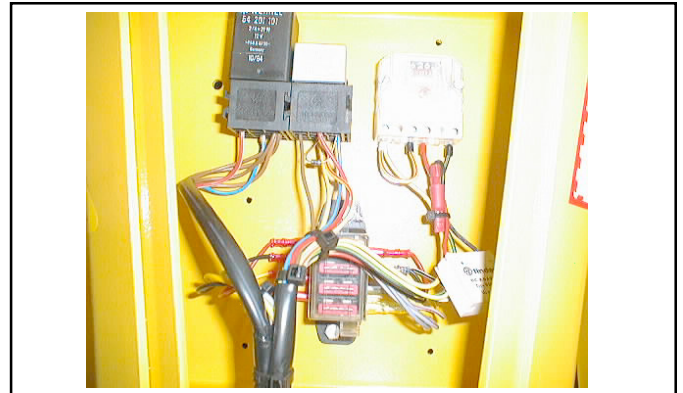
## Electrical components lighting system

The electrical components for the lighting system are located in

the steering column.

## Attachment to the central loading hook

Suspend the machine on the crane hook (1).



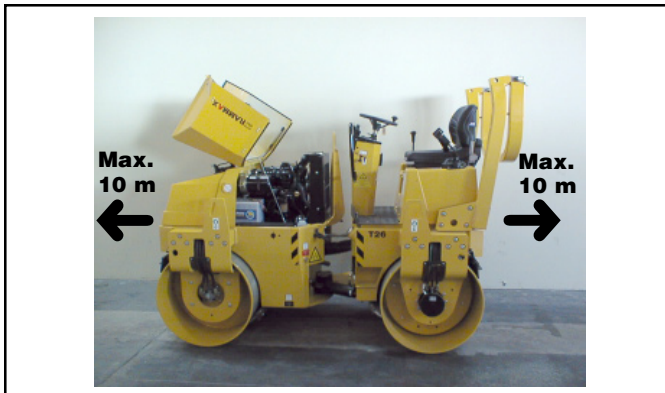
## Maintenance – towing, lifting of machine

### Towing

Only tow the machine in case of emergency for the purpose of moving it out of the hazard area (max. 10 m).

Transport the machine by using a truck or low loader.

Over a longer distance, the machine may only be towed with a tow bar (max. 500 m / 1Km/h), and the brake must be released



(see sheet release brake).

### Articulation lock

Fix the articulation lock **before** lifting the machine.

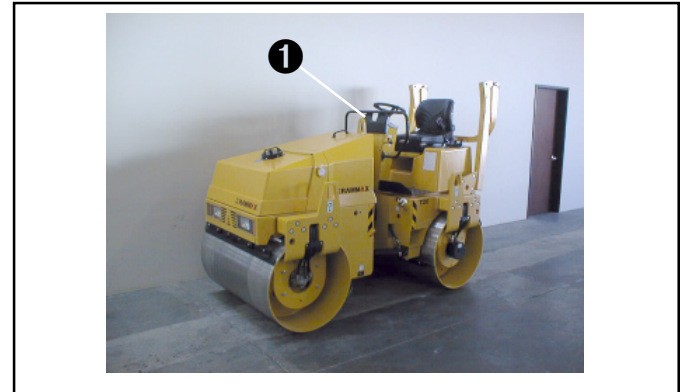


### Warning:

Never stand under lifted machine while loading or unloading it. Use only safe ramps. While transporting the machine, it must be secured against rolling, sliding and tipping over!

### Attachment to the 4-point lifting brackets

Suspend the machine by attaching an appropriate wire rope to

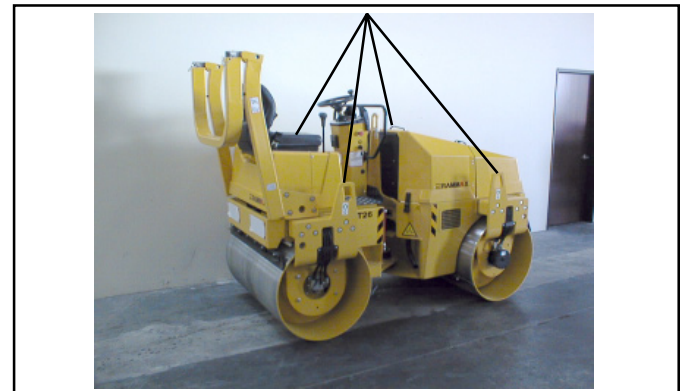


the 4-point lifting hooks.

### Warning:

Never stand under lifted machine while loading or unloading it. Use only safe ramps. While transporting the machine, it must be secured against rolling, sliding and tipping over!

### Release brake

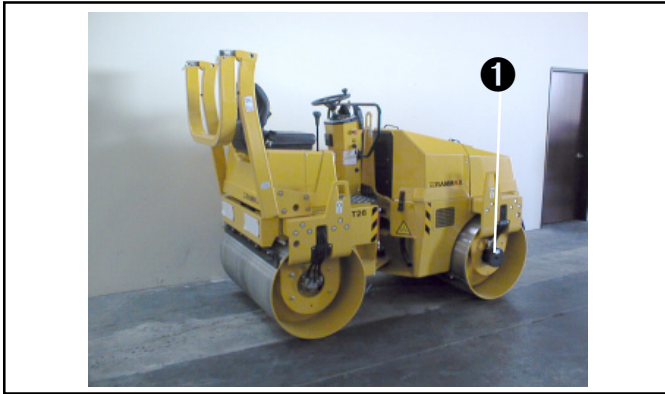




Front drive motor (1)

Rear drive motor (1)

Release of spring brake



Remove plug (1).

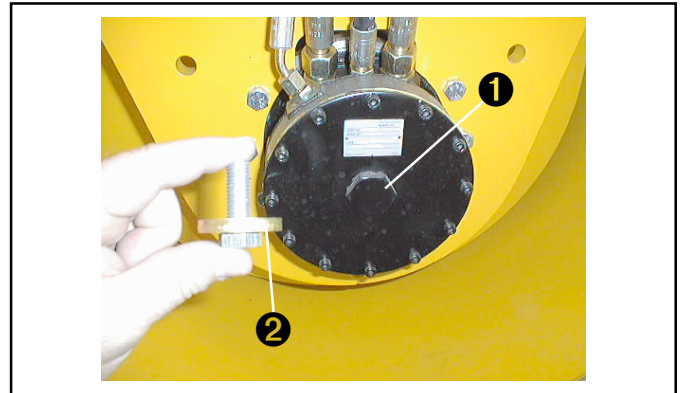


Install bolt M12X35 with washer (2) in its place.

(In pocket behind seat)

**Attention!**

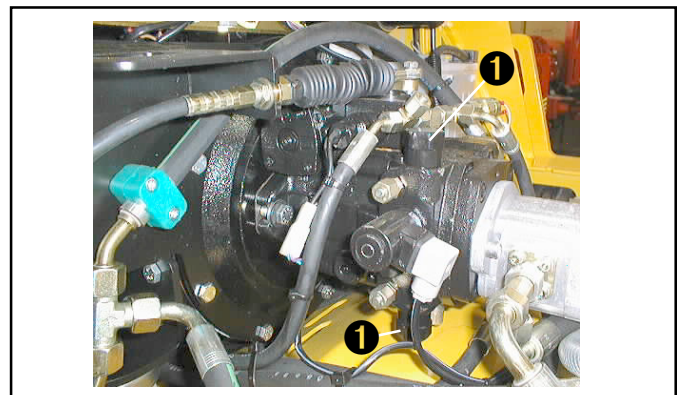
Compared to the A4VG28 drive pump installed up to Serial



Number 0899, this pump does no more have the possibility to slacken the relief valve cartridges (1) to open the by-pass. Should the machine really need to be towed away, the main ports A and B on the drive pump would have to be connected to each other.

**After towing the machine with released brakes, braking mode must be re-established.**

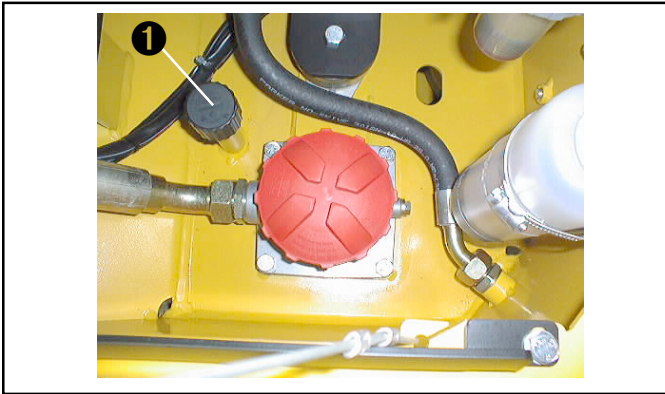
**Change / add hydraulic oil**



## 1) Hydraulic tank breather

Slacken the breather to release the tank pressure, otherwise it is impossible to top up oil.

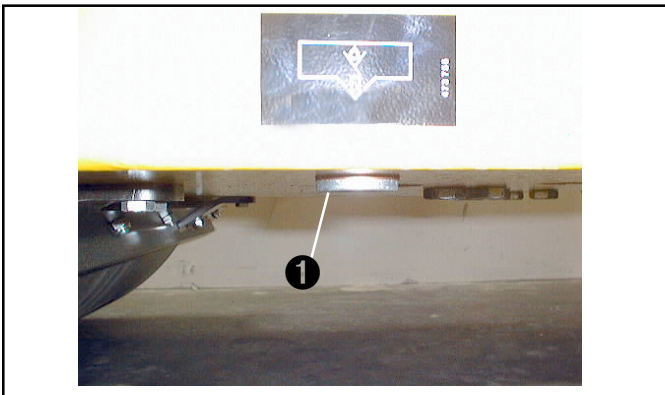
## 2) Oil drain plug



Unscrew the oil drain plug (1) and drain the oil into a pan. Then screw the oil drain plug back in again.

Filling capacity of hydraulic system: 48L

## 3) Oil filter



Remove hydraulic oil filter with the special wrench (wrench (1) with the ref.390159 is supplied with the machine) in pocket behind seat.

## 4) Hydraulic oil



Fit a new hydraulic oil filter onto the filter cap. Refill fresh hydraulic oil through the filter housing and re-install filter. Retighten tank breather.

Attention:

Never remove the filter cap before any dirt around the neck has been cleaned off! Always change filter and oil at the same time. First oil change after 500h, then every 2000h, but at least once a year.

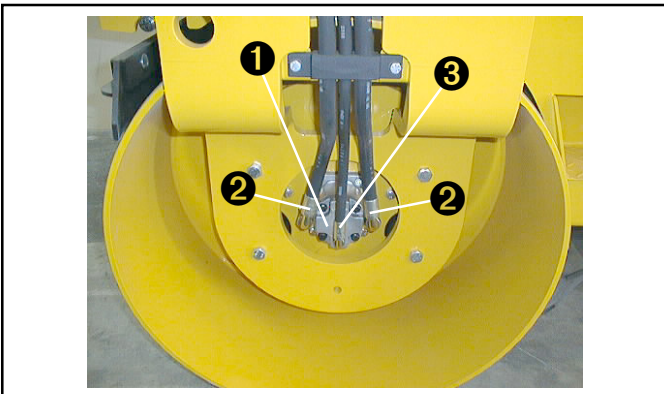
## Main components



# MAINTENANCE & REPAIR — YANMAR ENGINE

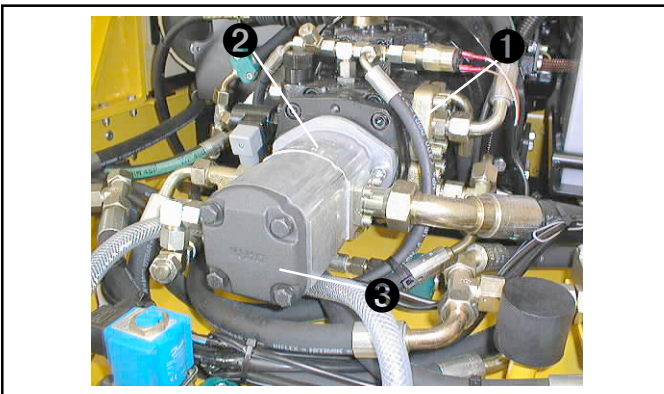
PART	ITEM	DAILY	EVERY 50 HRS.	EVERY 200 HRS.	EVERY 400 HRS.	EVERY 1000 HRS.
FUEL OIL SYSTEM	Check the fuel level and refill	○				
	Drain the fuel oil tank			○		
	Check the fuel oil filter and the water trap			○		
	Clean the fuel filter			○		
	Replace the fuel filter element				○	
	Fuel injection valve Check the injection condition					●
	Fuel injection pump Check the injection timing					●
LUBE OIL SYSTEM	Check the lube oil level in the crankcase	○				
	Replace the lube oil		○ (1 <sup>st</sup> time)	○ (2 <sup>nd</sup> time and thereafter)		
	Replace the lube oil filter		○ (1 <sup>st</sup> time)		○ (2 <sup>nd</sup> time and thereafter)	
COOLING WATER SYSTEM	Check the cooling water level	○				
	Check and clean the radiator fins for clogging	○			○ (Clean)	
	Replace the cooling water					○ (every year)
AIT INTAKE SYSTEM	Air cleaner element		○ (in dusty conditions)	○		
				○ (in dusty conditions)	○	
ENGINE BLOCK	Oil in the governor link system	○				
	Retighten the bolts		After the first 50 hours 50 hours after each disassembly and re-assembly			
	Adjust the intake/exhaust valve clearance				●	
ELECTRICAL EQUIPMENT	Check all warning lamps	○				
	Check the battery liquid level	○				
	Adjust the fan belt tension	○				

- 1) Vibration motor
- 2) Main drive circuit A & B
- 3) Leak oil vibrating motor
- 1) Emergency stop valve



- 2) Drive pump
- 3) Steering and vibration pump

## Check and adjust pressures



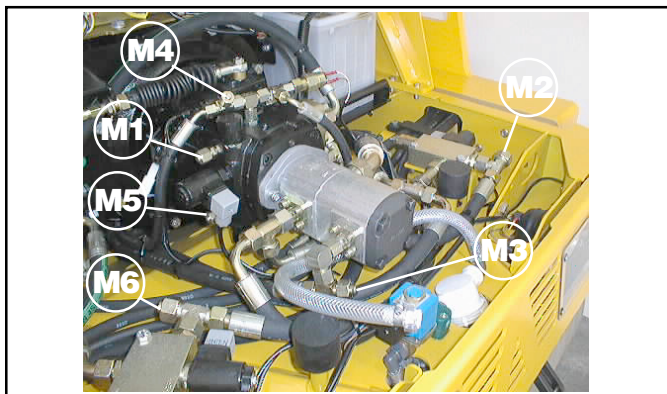


**All values stated are valid at:**

Hydraulic oil temperature of approx. 140 F and high idle (full RPM) of diesel engine.

**Relief valves should release pressure for max. 5 seconds.**

**M6 Relief valve when changing from single to double**



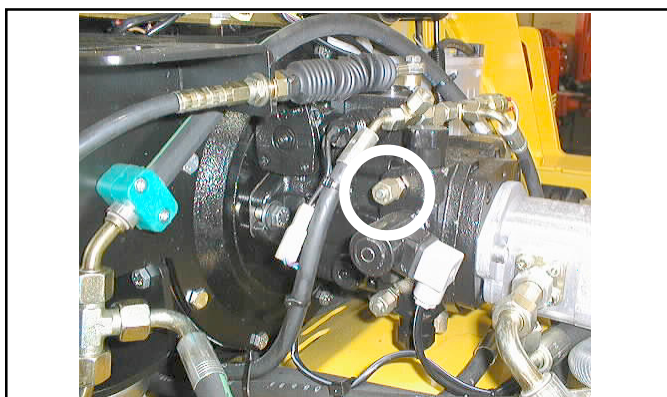
**Pressure gauge measuring range:**

M4	900 PSI
M1, M2, M3, M5, M6	9'000 PSI



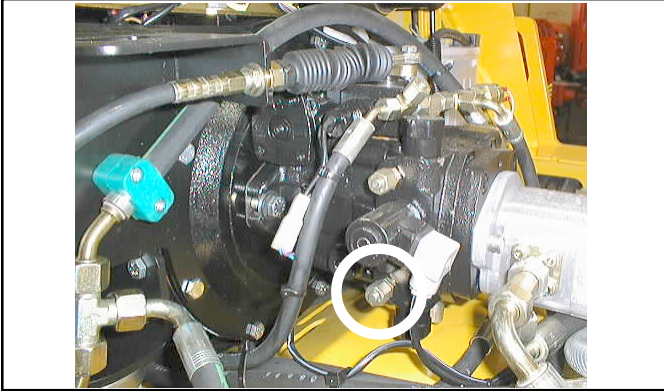
**M4 Charge pressure for drive pump at speed of approx. 2 mph**

260± 30 PSI (cannot be adjusted)

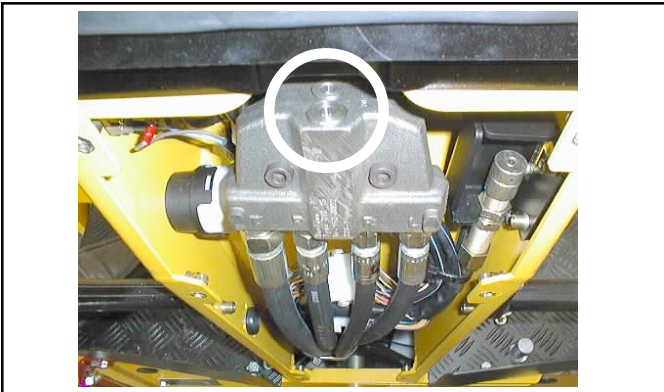


**M1 Pressure of drive circuit forward with blocked drum**

4'350 PSI plus charge pressure = 4'610 ± 220 PSI



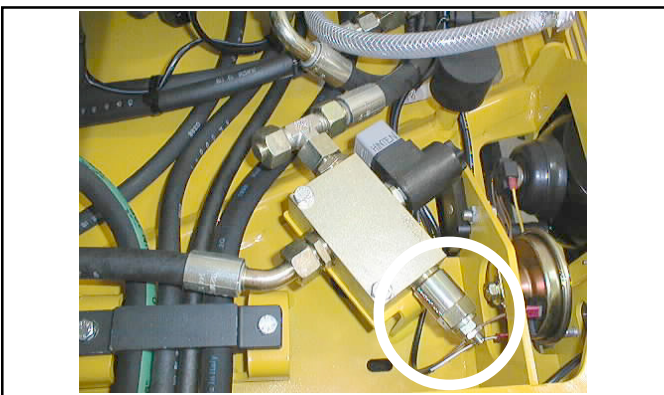
**M5 Pressure of drive circuit backward with blocked drum**  
 $5'250 \pm 150$  PSI plus charge pressure =  $5'625 \pm 150$  PSI



**M3 Steering relief valve at full articulation left and right**  
 $1'450 \pm 75$  PSI



**M2 Relief valve when engaging single vibration**  
 $1'750 \pm 75$  PSI



**vibration  $1'750 \pm 75$  PSI**

## Fuses

### Electrical components – engine

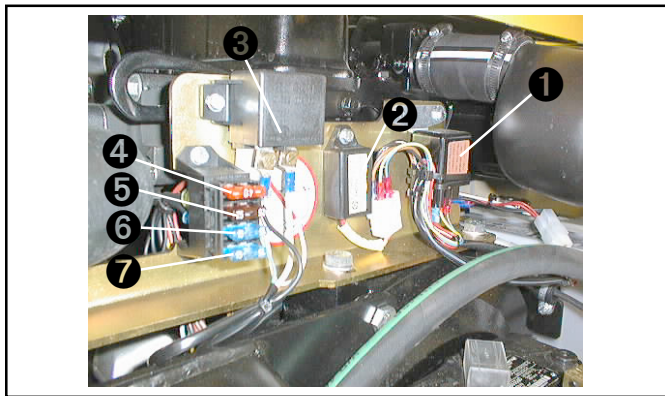
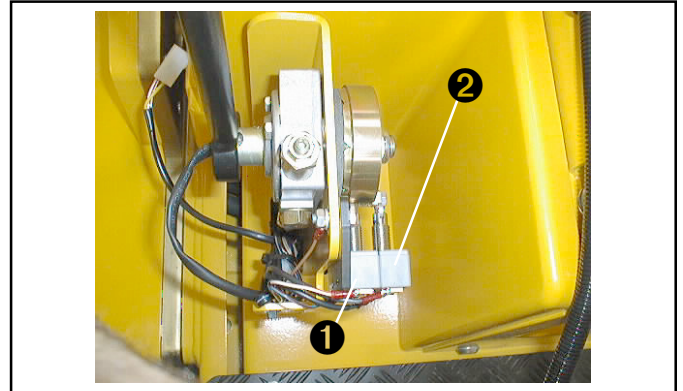
The electrical components for the engine are located at the front end of the engine, just above the drive pump.

- 1) Relay (K31), stop solenoid.
- 2) Timer (K30) for relay of stop solenoid.
- 3) Starter relay (K14), 70A.

## Fuses

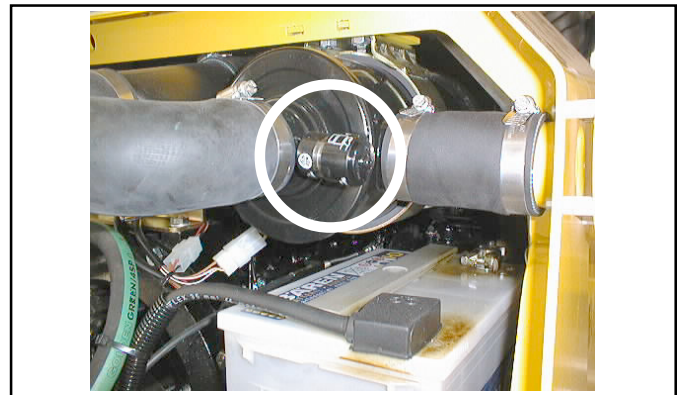
- 4 — F1, stop solenoid pulling coil (30A).
- 5 — F2 stop solenoid holding coil (7.5A).
- 6 — F3, vibration (10A).
- 7 — F4, horn, oil cooler fan, water pump (15A).

- 1) Emergency stop
- 2) Back-up alarm

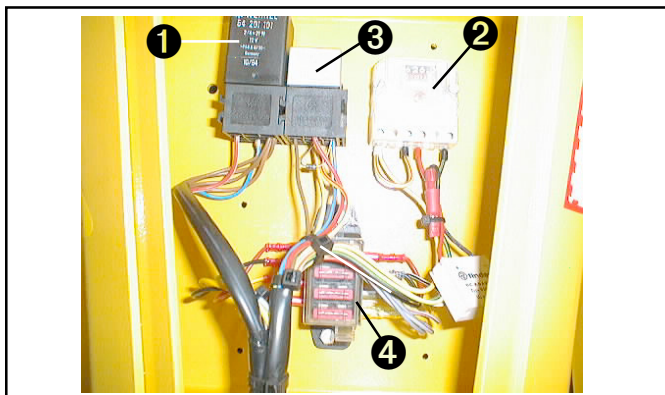


### Air Filter Service Indicator

Filter requires service when red ring is visible



- 1) Relay emergency stop
- 2) Relay vibration
- 3) Relay head lamps
- 4) Fuses

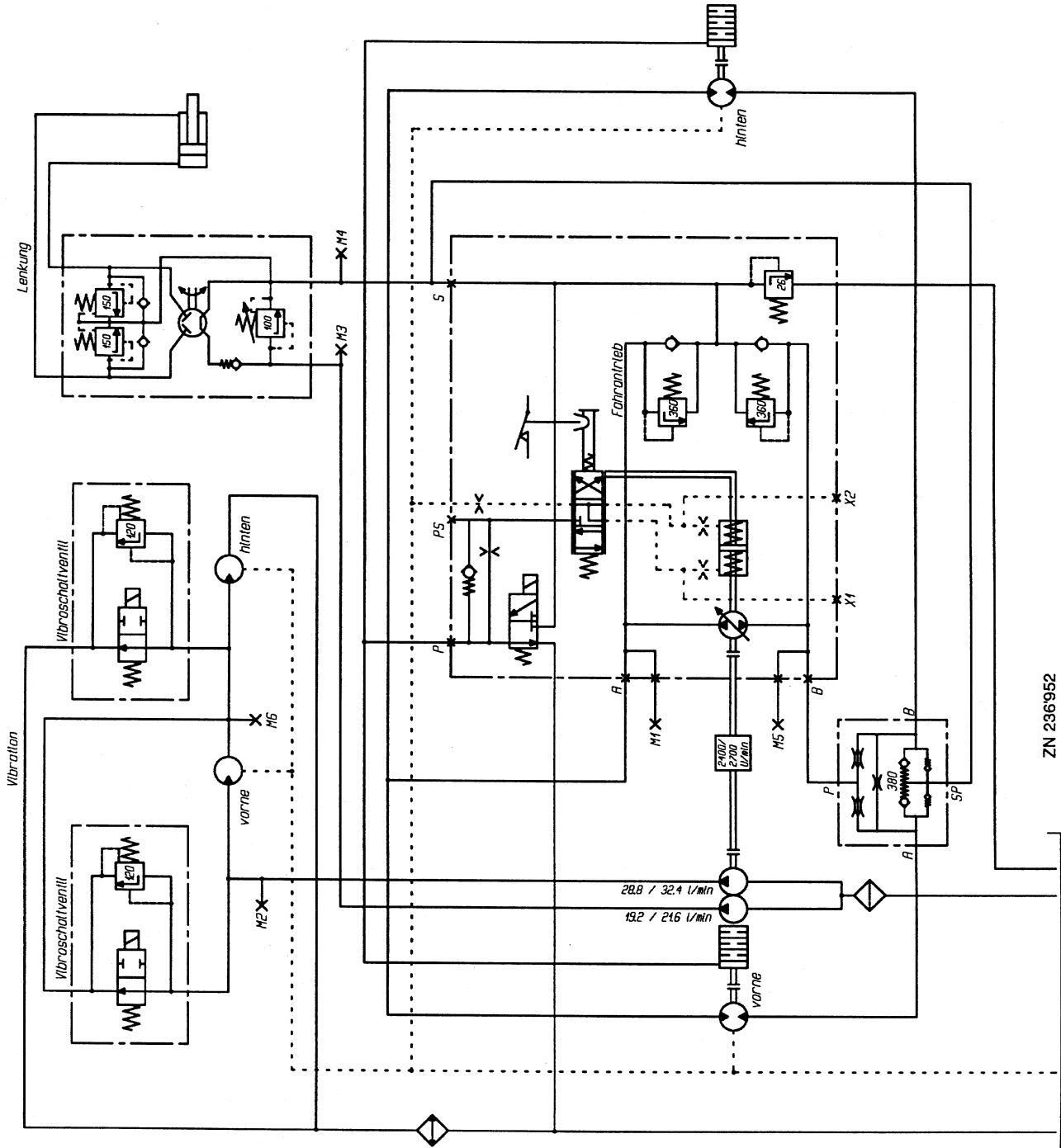




HYDRAULIC SYSTEM

nur für /only for/seulement pour

- AV23    AV40    AV23K
- AV26        AV26K
- AV32        AV32K
- AV33        AV40K





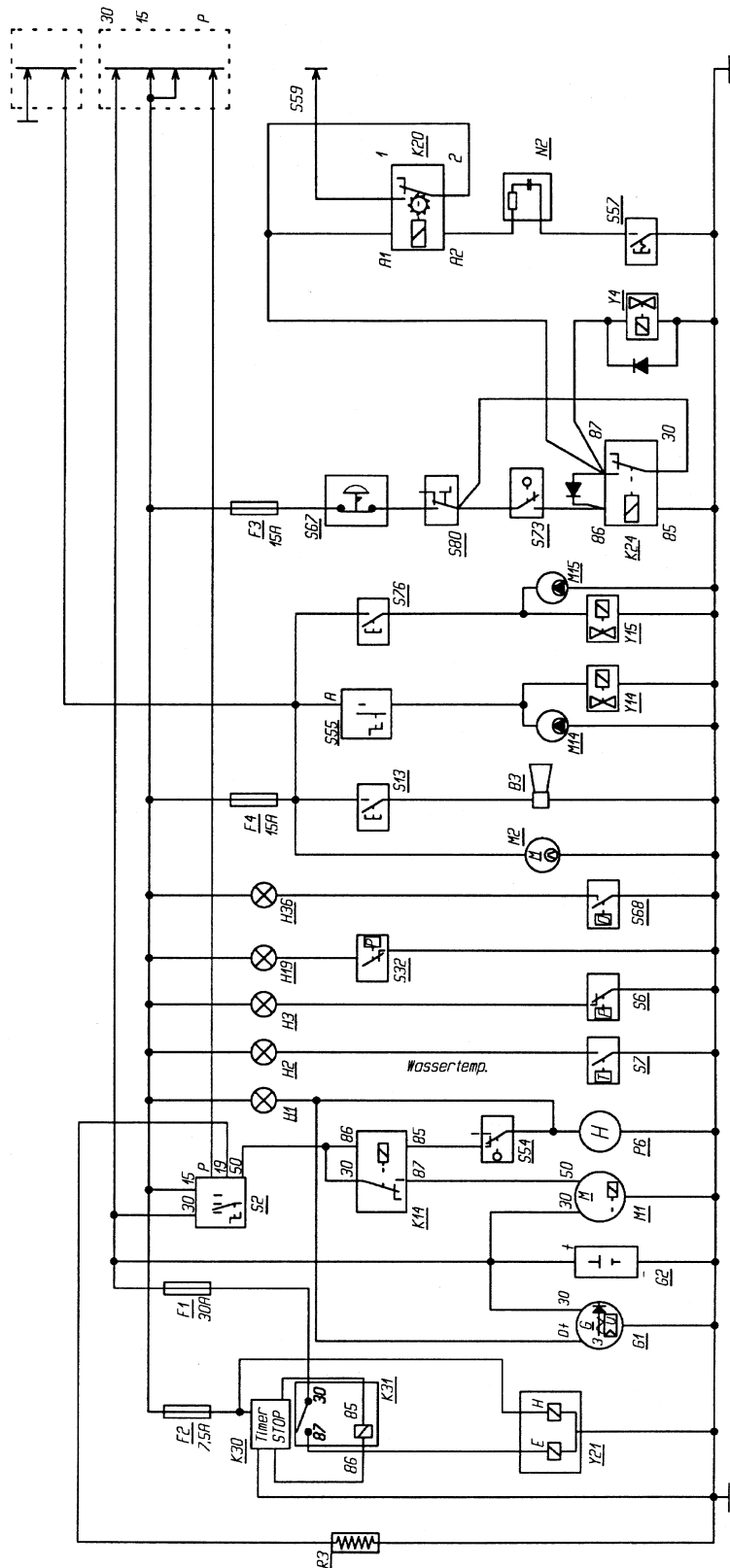
ELECTRICAL DIAGRAM

nur für  
only for  
seulement pour

- E- Version
- N- Version
- K- Version

Standardausrüstung

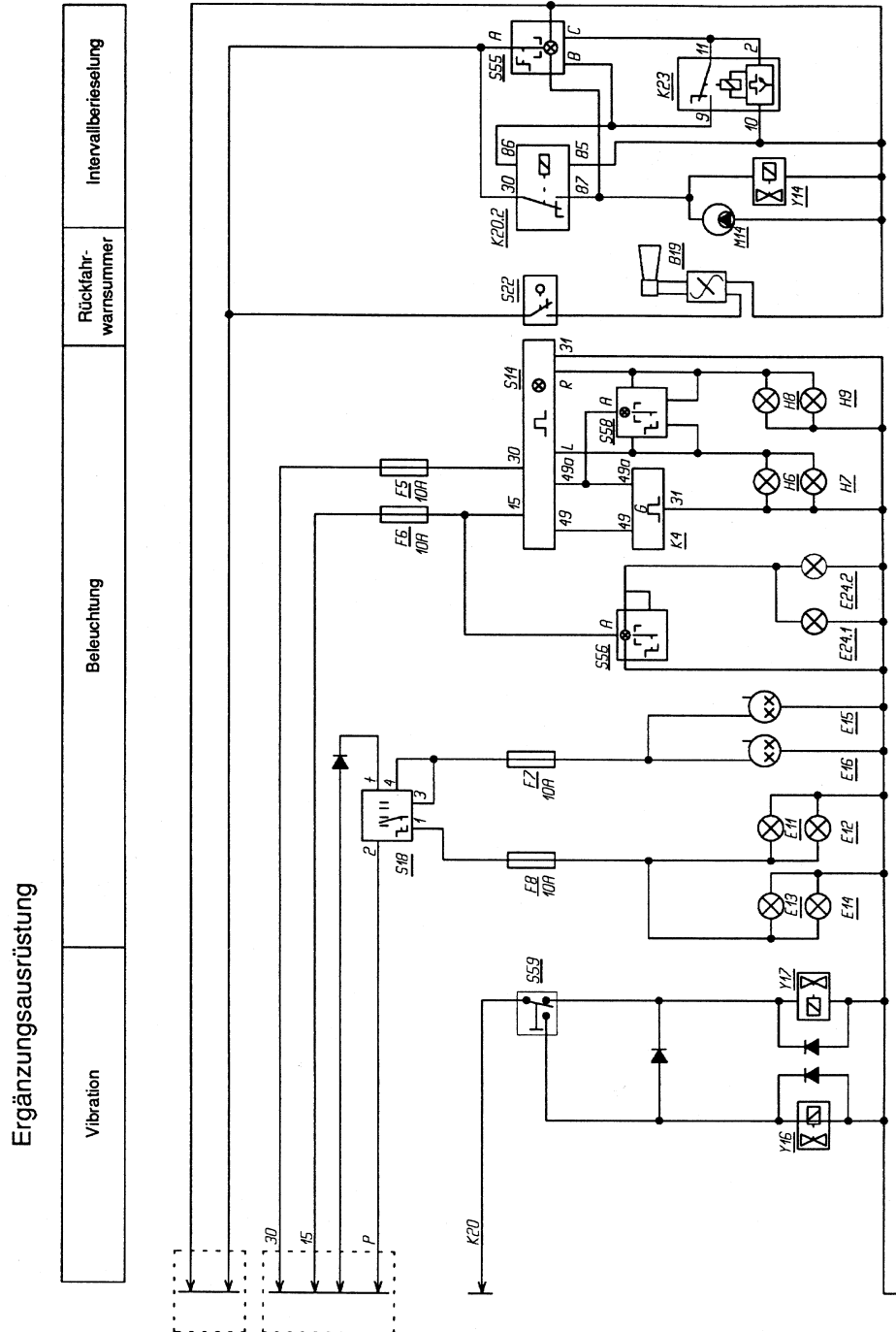
Stromversorgung mit Drehstromgenerator Start Anlage	Motorüberwachung Bremskontrolle	Horn, Gebläse Brennstoffanzeige	Berieselung	Not-Aus
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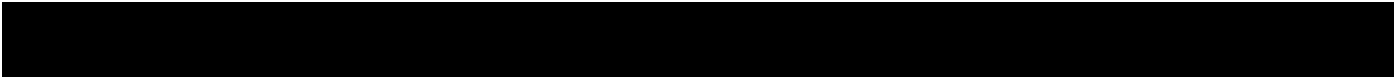


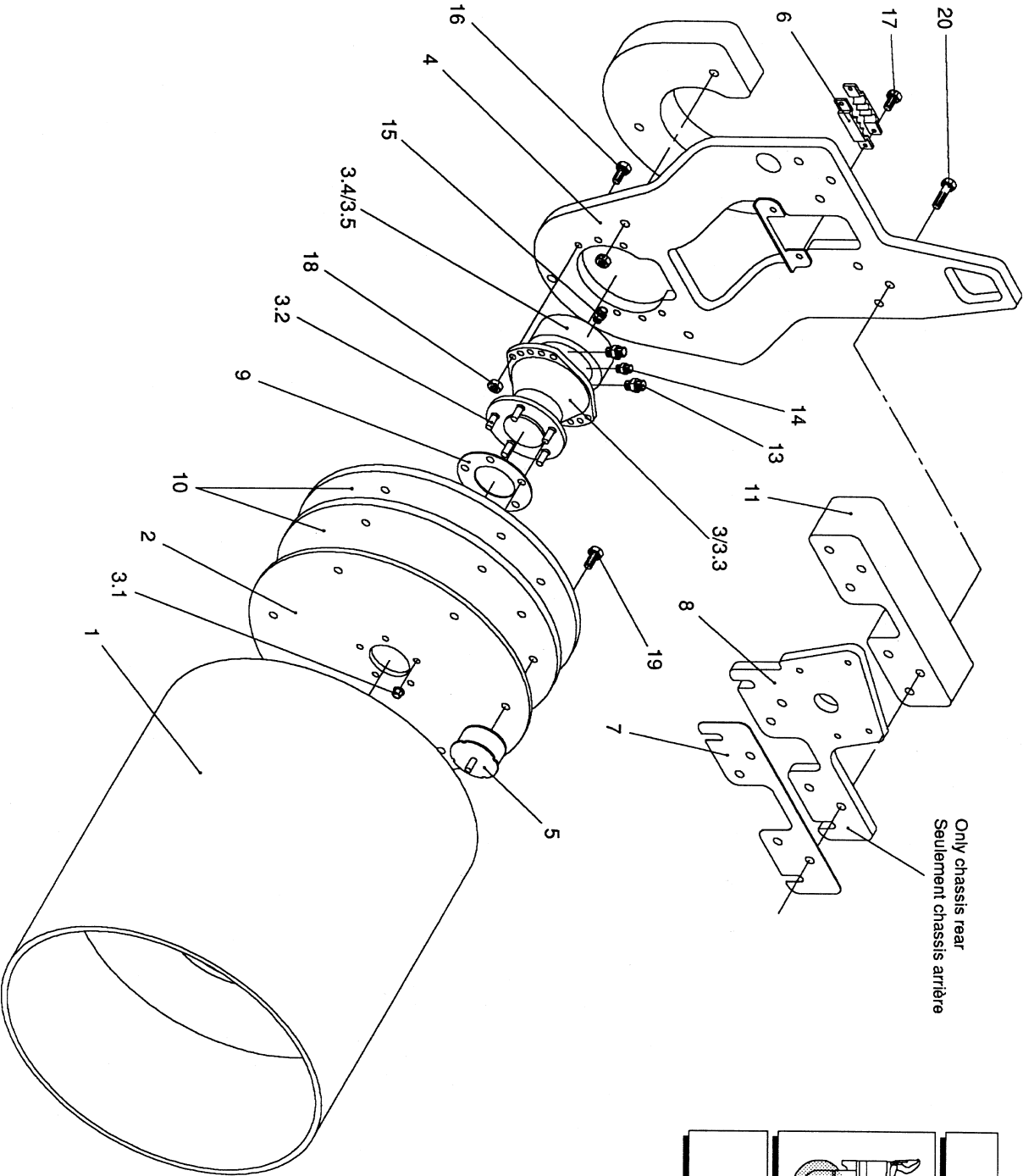
ELECTRICAL DIAGRAM

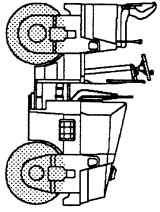
nur für  
only for  
seulement pour

- E- Version
- N- Version
- K- Version



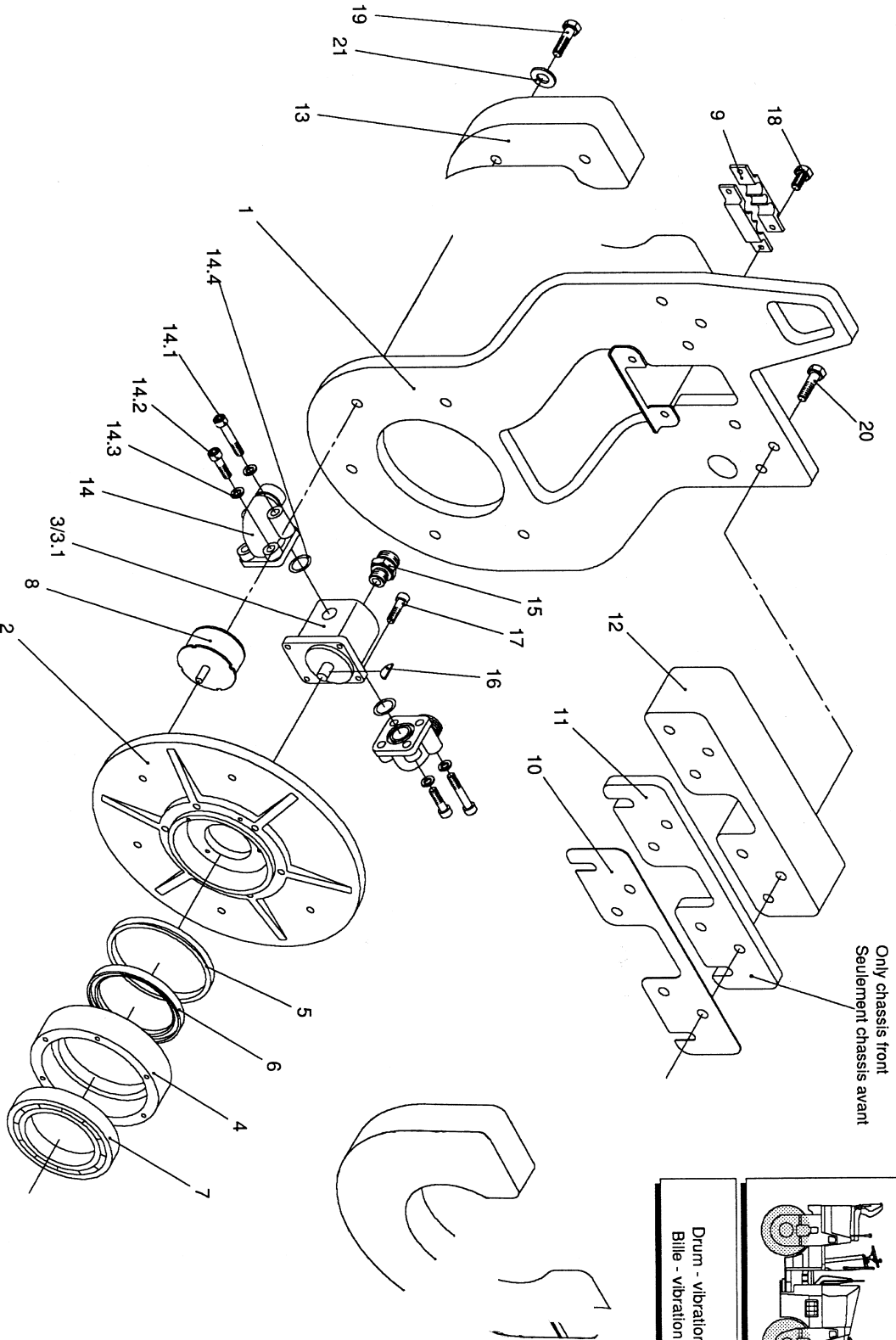




<b>1 - 0.1</b>

Drum - travelling Bille - translation

1-0.1  
DRUM - TRAVELLING

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL135295	WHEEL, T23	1	
1	AVL135314	WHEEL, T26	1	
1	AVL135324	WHEEL	1	
2	AVL341547	WASHER	1	
3	AVL494805	HYDRAULIC MOTOR	1	
3.1	AVL921734	NUT	5	
3.2	AVL921735	WHEEL STUD	5	
3.3	AVL921737	SEAL KIT	1	
3.4	AVL921775	LAMELLA OUTSIDE	12	
3.5	AVL921776	INSIDE LAMINA	11	
4	AVL135555	DRUM SUPPORT	1	
5	AVL491884	ISOLATION MOUNTING, T23/T26	5	
5	AVL491884	ISOLATION MOUNTING, T33	6	
6	AVL803772	STRAP	1	
7	AVL824883	PLATE	1	
7	AVL824884	PLATE	1	
7	AVL824885	PLATE	1	
8	AVL824888	DISTANCE PLATE	1	
9	AVL803770	WASHER	1	
10	AVL803977	ADDITIONAL WEIGHT	2	
11	AVL365973	DISTANCE PLATE, T26	1	
11	AVL365972	DISTANCE PLATE, T33	1	
13	AVL922312	REDUCER	2	
14	AVL901745	REDUCER	1	
15	AVL901059	REDUCER	1	
16	AVL901785	SCREW HEX. HD.	6	
17	AVL901765	SCREW HEX. HD.	2	
18	AVL902126	NUT HEX.	6	
19	AVL901798	SCREW HEX. HD., T23/T26	6	
19	AVL909746	SCREW HEX. HD., T33	8	
20	AVL901901	SCREW HEX. HD., T23	6	
20	AVL901911	SCREW HEX. HD., T26	6	
20	AVL901915	SCREW HEX. HD., T33	6	



	<b>1 - 0.2</b>
Drum - vibration Bille - vibration	

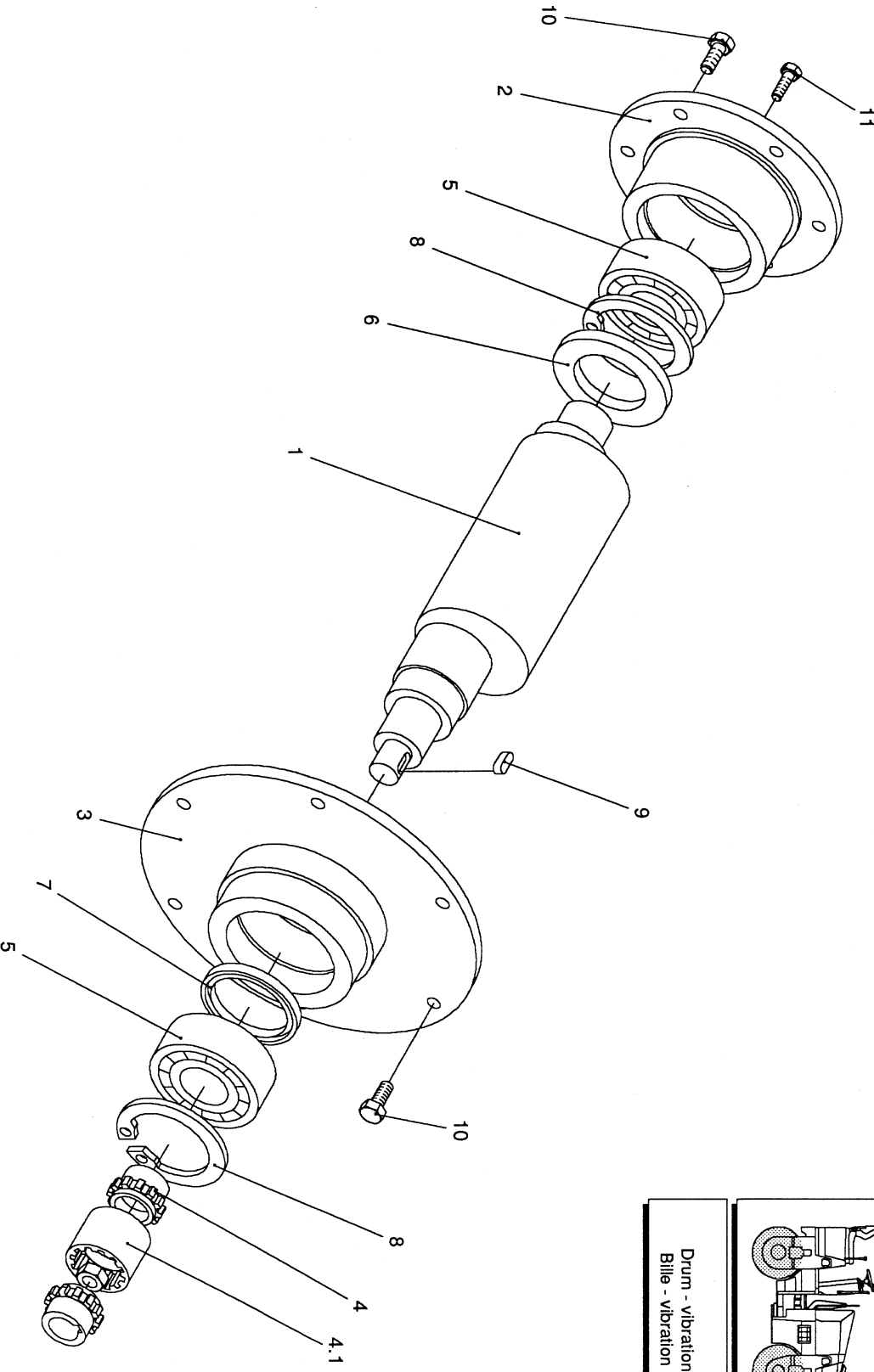
1-0.2

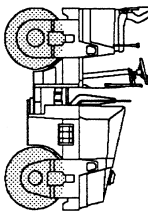
## VIBRATION DRUM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL135556	DRUM SUPPORT	1	
2	AVL135294	FLANGE	1	
3	AVL494807	HYDRAULIC MOTOR	1	
3.1	AVL922226	SEAL KIT	1	
4	AVL341567	HOUSING	1	
5	AVL908254	V-SEAL	1	
6	AVL907369	SEAL RING	1	
7	AVL900426	GROOVED BALL BEARING	1	
8	AVL491884	ISOLATION MOUNTING, T23/T26	4	
8	AVL491884	ISOLATION MOUNTING, T33	5	
9	AVL803771	STRAP	2	
10	AVL824883	PLATE	1	
10	AVL824884	PLATE	1	
10	AVL824885	PLATE	1	
11	AVL824889	DISTANCE PLATE	1	
12	AVL365973	DISTANCE PLATE, T26	1	
12	AVL365972	DISTANCE PLATE, T33	1	
13	AVL366144	ADDITIONAL WEIGHT, T33	1	
14	AVL491356	FLANGE COMPLETE	2	
14.1	AVL902682	ALAN SCREW	4	
14.2	AVL908882	ALAN SCREW	4	
14.3	AVL902323	SPRINGWASHER	8	
14.4	AVL906670	SEAL	2	
15	AVL901311	REDUCER	1	
16	AVL921609	KEY	1	
17	AVL902640	ALAN SCREW	4	
18	AVL901765	SCREW HEX. HD.	2	
19	AVL901800	SCREW HEX. HD., T23/T26	4	
19	AVL901807	SCREW HEX. HD., T33	5	
20	AVL901901	SCREW HEX. HD., T23	6	
20	AVL901911	SCREW HEX. HD., T26	6	
20	AVL901915	SCREW HEX. HD., T33	6	
21	AVL902267	WASHER, T26/T33	5	



# VIBRATION DRUM



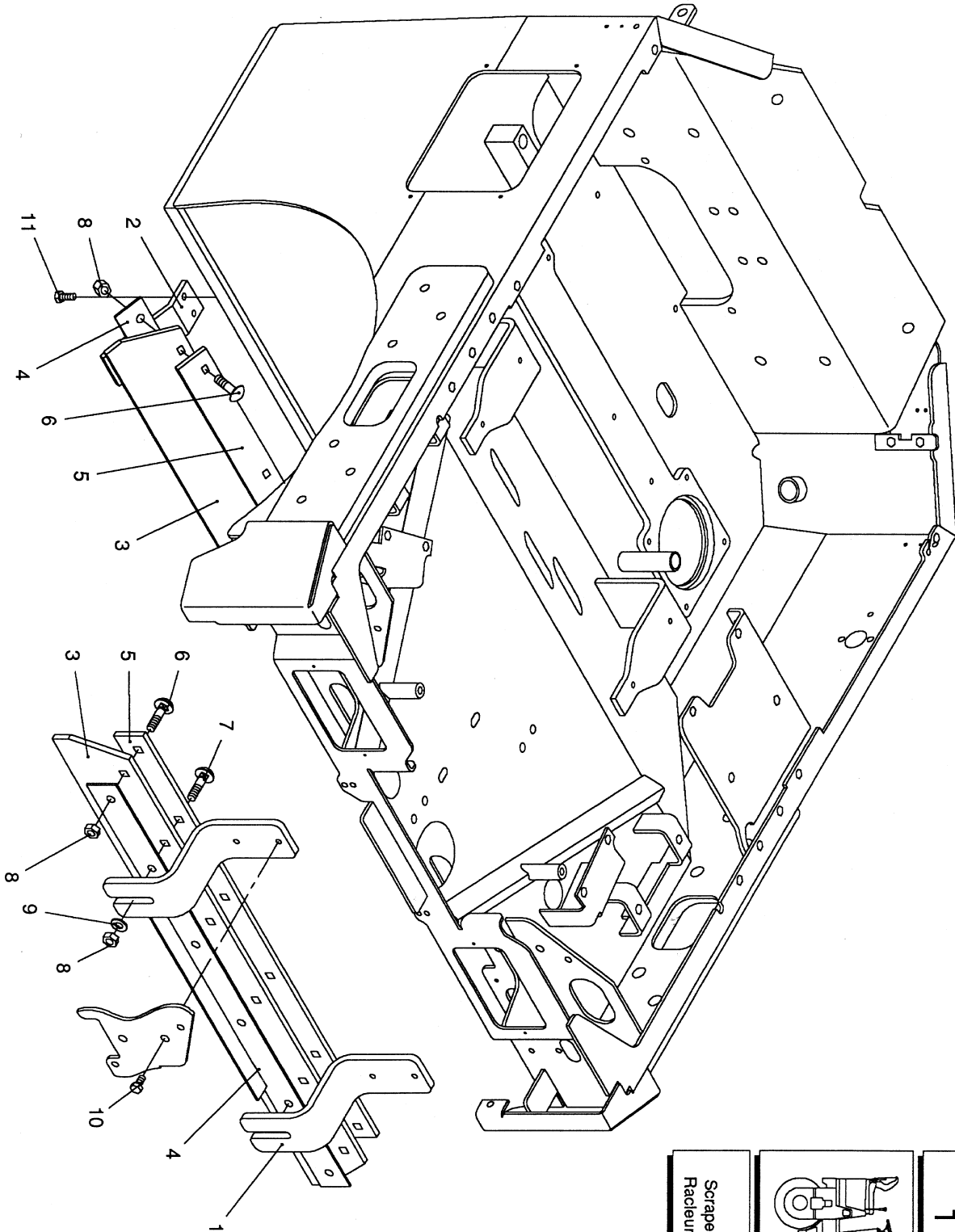
Drum - vibration Bille - vibration		<b>1 - 0.3</b>
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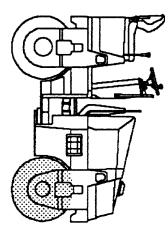
1-0.3

## VIBRATION DRUM

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL236311	VIBRO SHAFT, T23	1	
1	AVL236349	VIBRO SHAFT, T26	1	
1	AVL236370	VIBRO SHAFT, T33	1	
2	AVL341569	HOUSING	1	
3	AVL341570	FLANGE	1	
4	AVL493094	CLUTCH COMPLETE	1	
4.1	AVLB24	PLASTIC BUSHING	1	
5	AVL904014	ROLLER BEARING	2	
6	AVL922670	SEAL RING	1	
7	AVL922671	SEAL RING	1	
8	AVL903577	RETAINING CLIP	2	
9	AVL903824	KEY	1	
10	AVL901774	SCREW HEX. HD.	12	
11	AVL901760	SCREW HEX. HD.	1	

# SCRAPER CHASSIS FRONT



Scraper chassis front Racleur châssis avant		1 - 2.1
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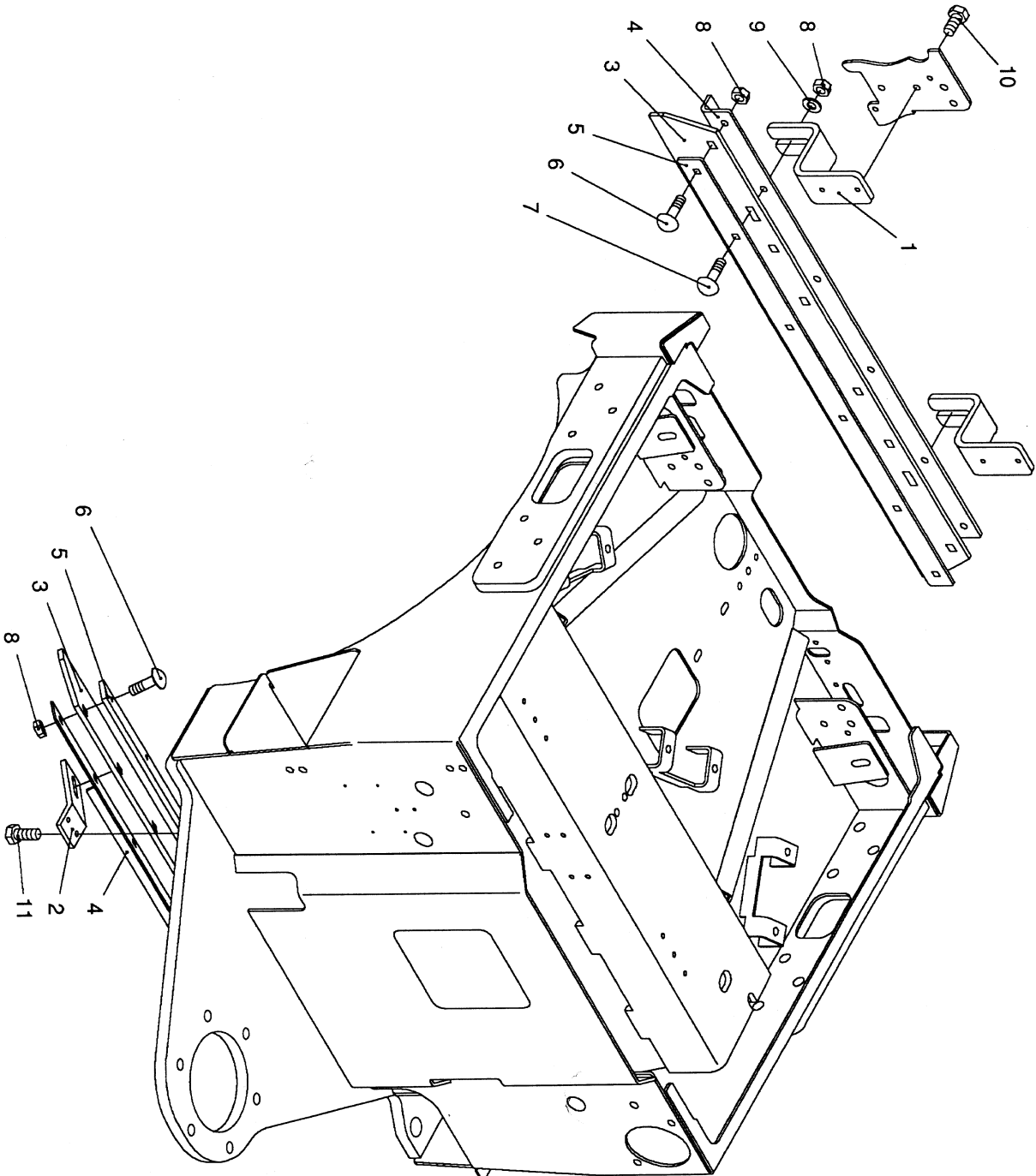
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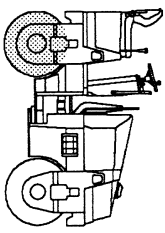
1-2.1

## SCRAPER CHASSIS FRONT

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL824194	SCRAPER BRACKET	2	
2	AVL803817	SCRAPER BRACKET	2	
3	AVL449730	SCRAPER, T23	2	
3	AVL465181	SCRAPER, T26	2	
3	AVL803961	SCRAPER, T33	2	
4	AVL236231	PLATE, T23	2	
4	AVL236232	PLATE, T26	2	
4	AVL236371	PLATE, T33	2	
5	AVL341410	PLATE, T23	2	
5	AVL341411	PLATE, T26	2	
5	AVL341710	PLATE, T33	2	
6	AVL921649	SAUCER-HEAD SCREW	8	
7	AVL922555	SAUCER-HEAD SCREW	4	
8	AVL902206	NUT HEX.	12	
9	AVL902264	WASHER	4	
10	AVL901772	SCREW HEX. HD.	4	
11	AVL901773	SCREW HEX. HD.	4	

# SCRAPER CHASSIS REAR



Scraper chassis rear Racleur châssis arrière		1 - 2.2
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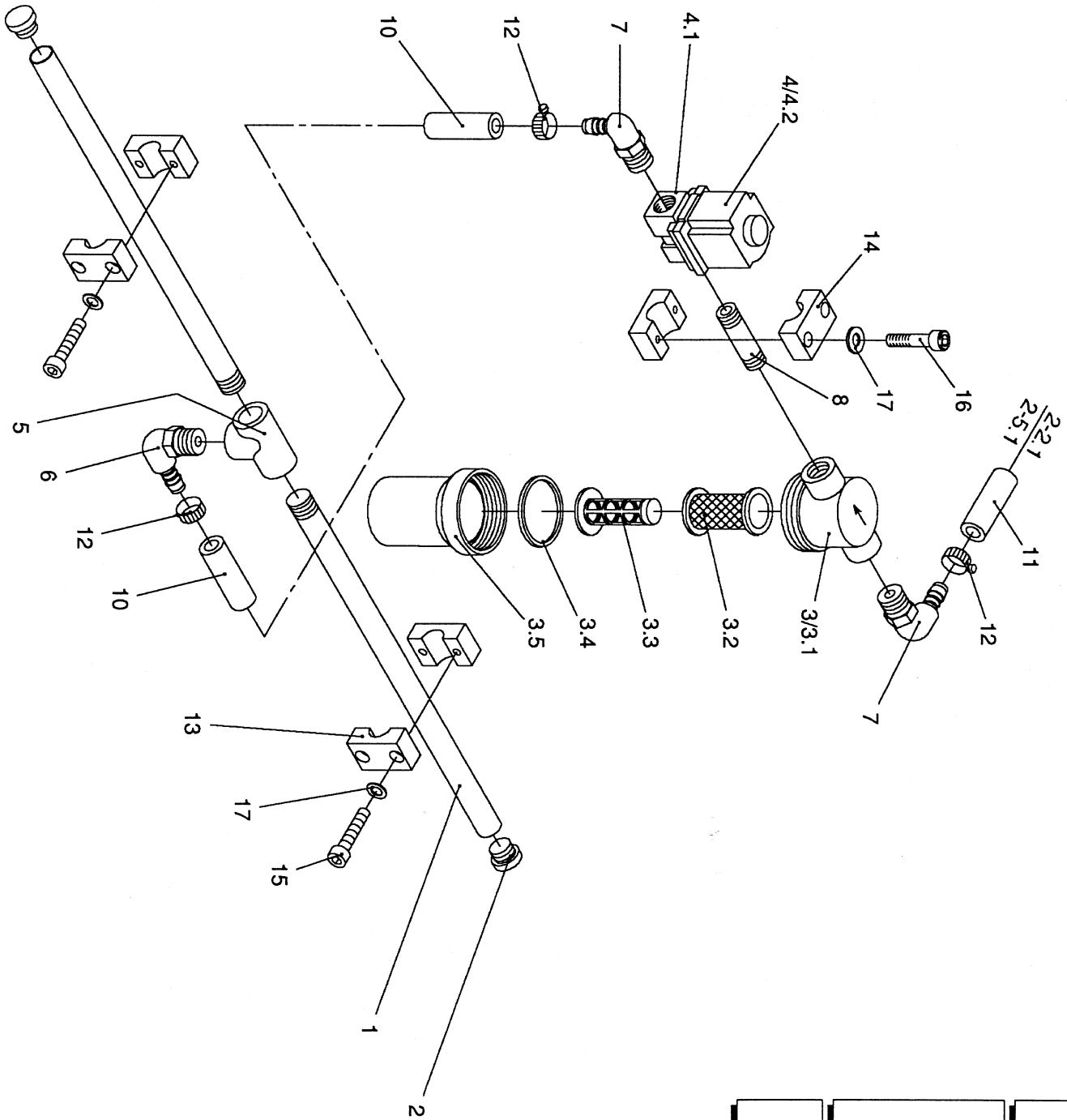
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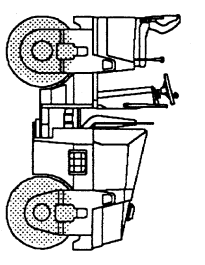
1-2.2

## SCRAPER CHASSIS REAR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL824194	SCRAPER BRACKET	2	
2	AVL803817	SCRAPER BRACKET	2	
3	AVL449730	SCRAPER, T23	2	
3	AVL465181	SCRAPER, T26	2	
3	AVL803961	SCRAPER, T33	2	
4	AVL236231	PLATE, T23	2	
4	AVL236232	PLATE, T26	2	
4	AVL236371	PLATE, T33	2	
5	AVL341410	PLATE, T23	2	
5	AVL341411	PLATE, T23	2	
5	AVL341710	PLATE, T33	2	
6	AVL921649	SAUCER-HEAD SCREW	8	
7	AVL922555	SAUCER-HEAD SCREW	4	
8	AVL902206	NUT HEX.	12	
9	AVL902264	WASHER	4	
10	AVL901772	SCREW HEX. HD.	4	
11	AVL901773	SCREW HEX. HD.	4	

# GRAVITY SPRINKLER



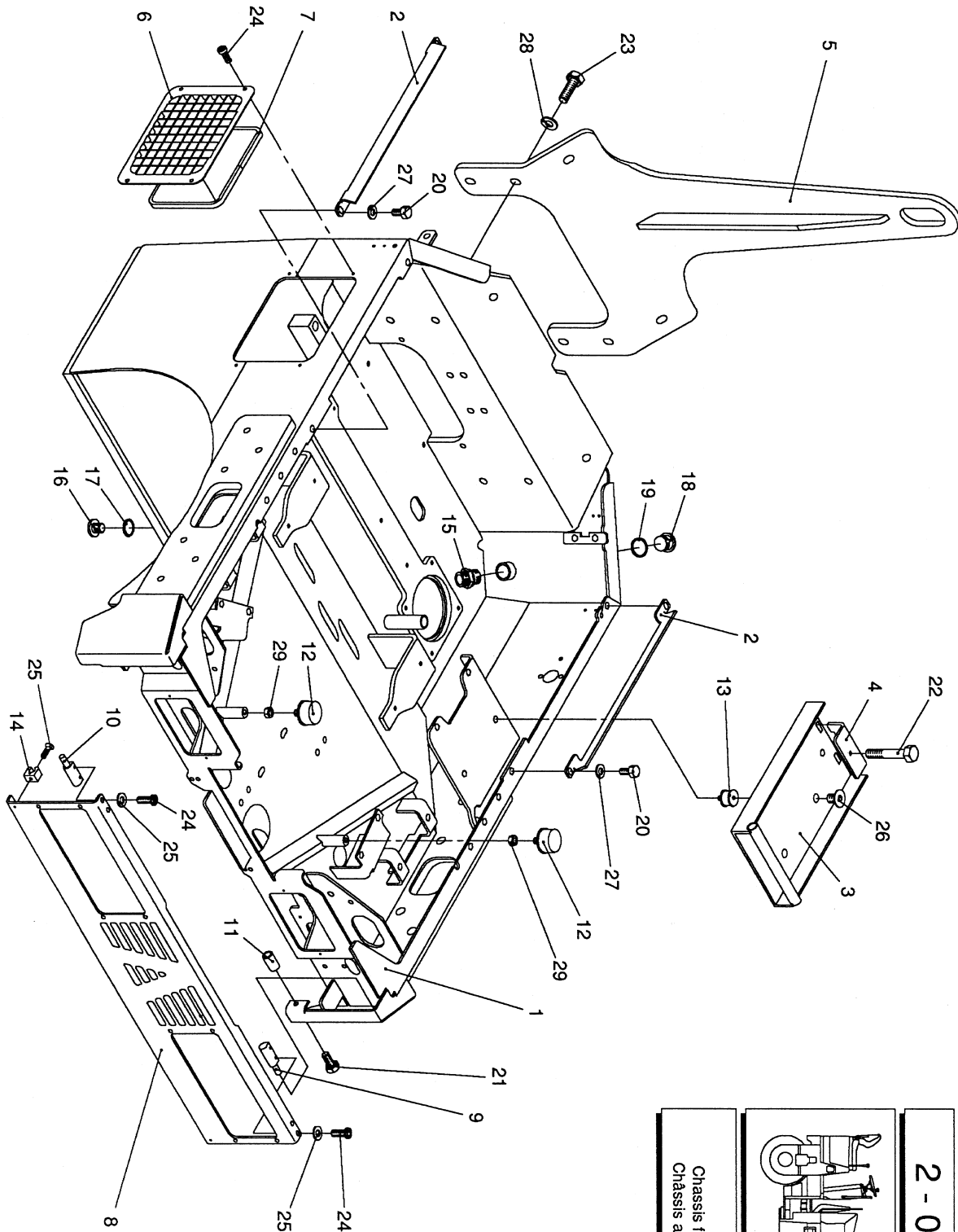
1 - 3.1		Gravity feed sprinkler Arrosage par gravité
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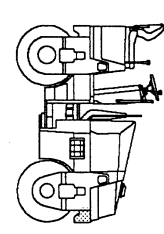


## 1-3.1 GRAVITY SPRINKLER

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL341575	SPRINKLER PIPE, T23	4	
1	AVL341637	SPRINKLER PIPE, T26	4	
1	AVL341741	SPRINKLER PIPE, T33	4	
2	AVL909418	PLUG	4	
3	AVL494443	FILTER	2	
3.1	AVL921706	FILTER BASE	2	
3.2	AVL921710	ELEMENT	2	
3.3	AVL921709	FILTER HOLDER	2	
3.4	AVL921708	GASKET	2	
3.5	AVL921707	GLASS	2	
4	AVL494637	SHUT-OFF VALVE	2	
4.1	AVL921739	WAY-VALVE	2	
4.2	AVL921740	COIL	2	
5	AVL905293	FITTING	2	
6	AVL909398	REDUCER	2	
7	AVL909398	REDUCER	4	
8	AVL905432	NIPPLE	2	
10	AVL903792	HOSE	2	
11	AVL903792	HOSE	2	
12	AVL908157	HOSE CLAMP	6	
13	AVL903726	HALF BOWL	8	
14	AVL921495	HALF BOWL	4	
15	AVL902683	ALAN SCREW	8	
16	AVL921645	ALAN SCREW	4	
17	AVL903719	WASHER	12	

# CHASSIS FRONT

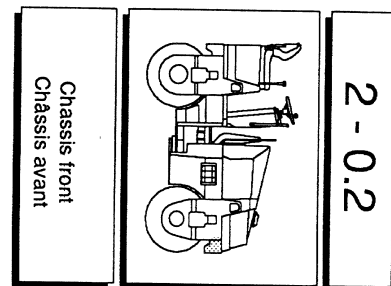
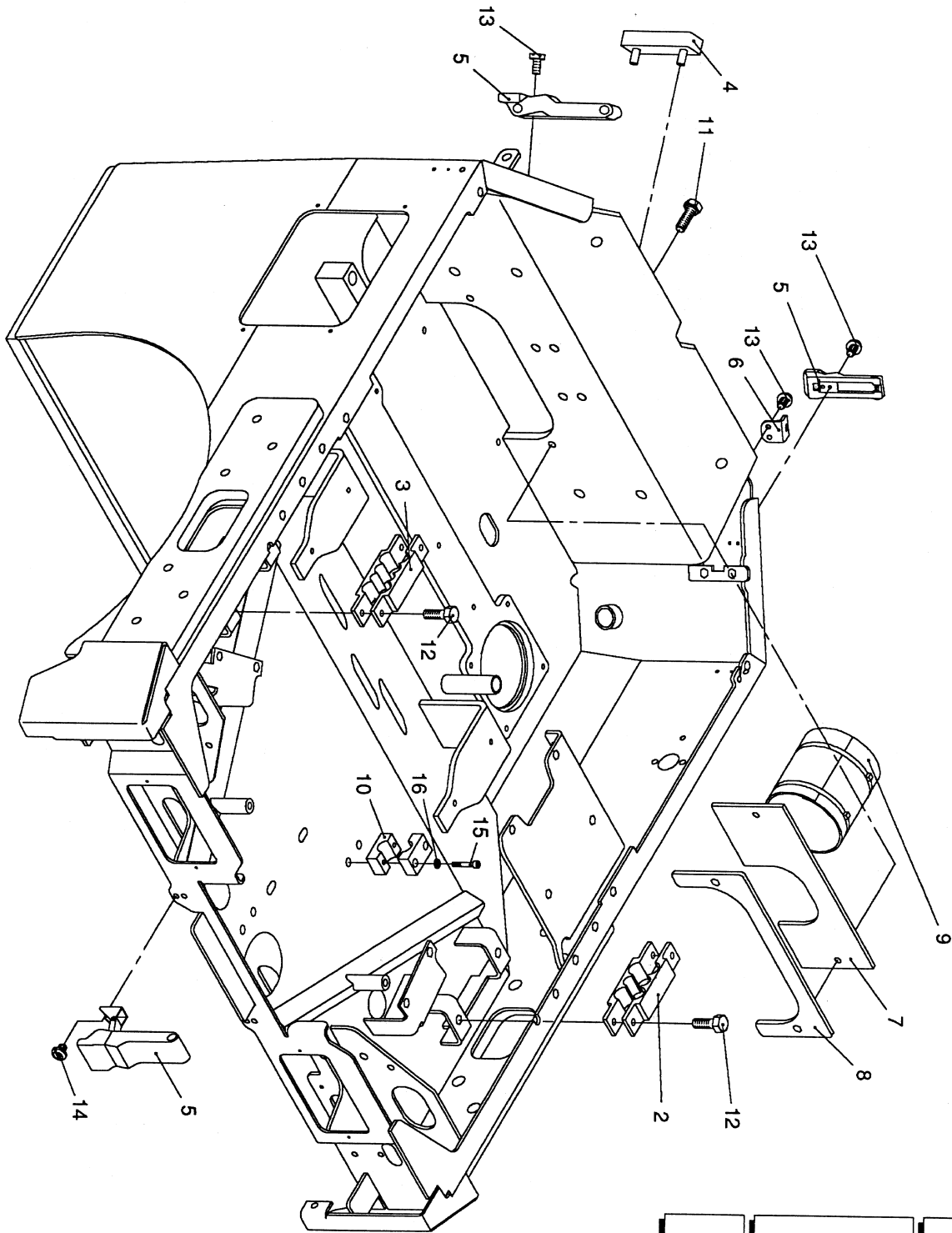


2 - 0.1

Chassis front Châssis avant

2-0.1  
CHASSIS FRONT

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL135542	REAR FRAME	1	
2	AVL365928	HOOD GUIDE	2	
3	AVL341593	BATTERY MOUNTING	1	
4	AVL803850	ANGLE	1	
5	AVL366134	SUSPENSION	1	
6	AVL824060	GRID	1	
7	AVL494417	PROFILED JOINT	1	
8	AVL366122	FRONT COVER	1	
9	AVL824936	HINGE	1	
10	AVL824937	HINGE	1	
11	AVL820281	CORE (CONNECTOR)	2	
12	AVL923617	ISOLATION MOUNTING	2	
13	AVL923280	ISOLATION MOUNTING	4	
14	AVL906194	CLAMP	2	
15	AVL921685	REDUCER	1	
16	AVL906543	CAP SCREW	1	
17	AVL903769	SEAL RING	1	
18	AVL906542	PLUG	1	
19	AVL906943	GASKET	1	
20	AVL901755	SCREW HEX. HD.	4	
21	AVL901762	SCREW HEX. HD.	2	
22	AVL921628	SCREW HEX. HD.	1	
23	AVL901777	SCREW HEX. HD.	6	
24	AVL922992	CHEESE HEAD SCREW	8	
25	AVL902919	COUNTERSUNK SCREW	2	
26	AVL908876	COUNTRESUNK SCREW	4	
27	AVL902262	WASHER	8	
28	AVL902264	WASHER	6	
29	AVL902125	NUT HEX.	2	

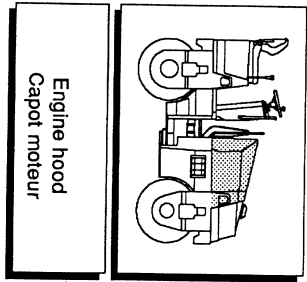
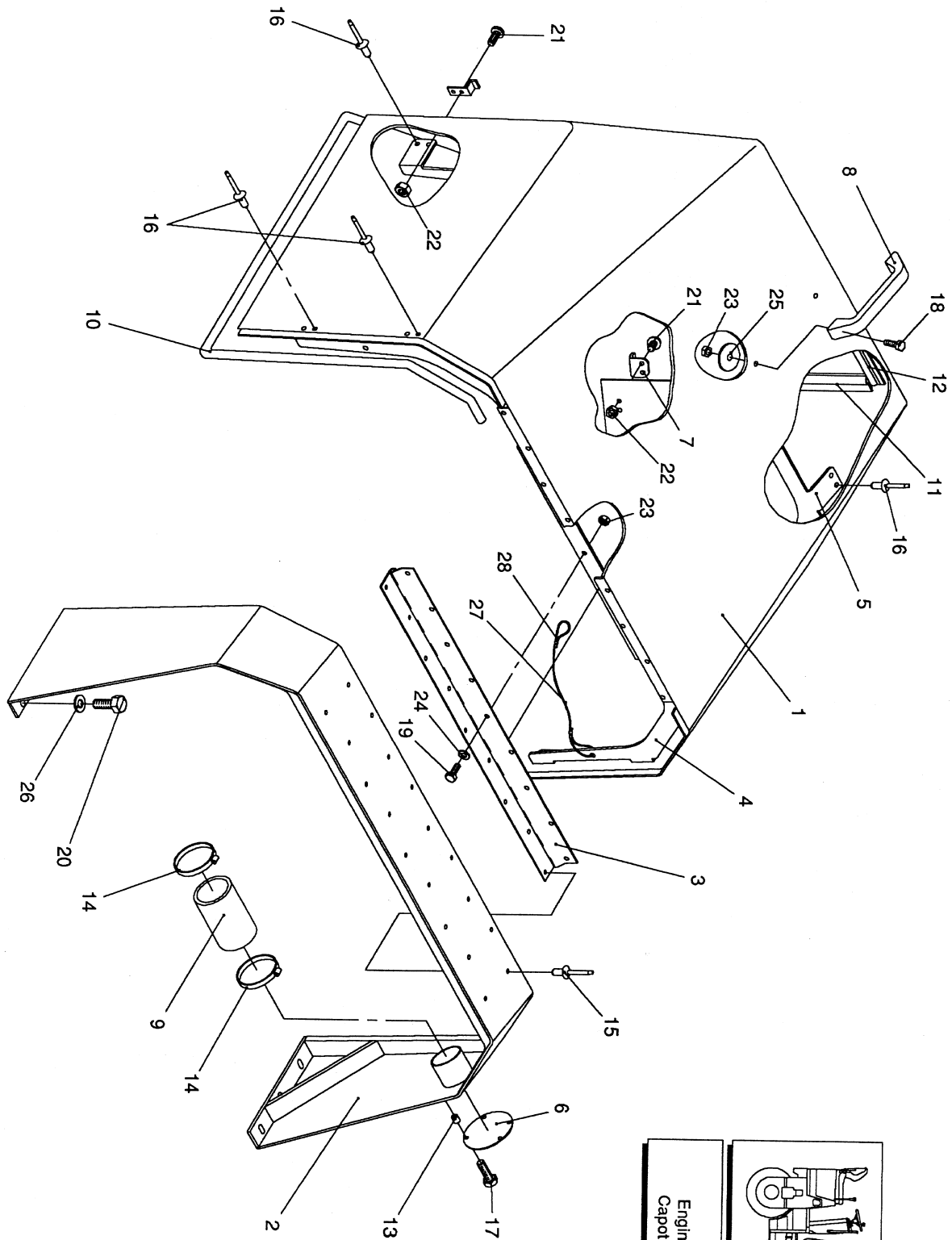
# CHASSIS FRONT



2-0.2

**CHASSIS FRONT**

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL803771	STRAP	2	
3	AVL803772	STRAP	2	
4	AVL495048	OIL LEVEL GAUGE	1	
5	AVL494880	BENT-LEVER CLOSURE	4	
6	AVL820566	BRACKET	1	
7	AVL824973	RUBBER PLATE	1	
8	AVL824918	PLATE	1	
9	AVL493266	RUBBER PLATE	1	
10	AVL903726	HALF BOWL	2	
11	AVL901764	SCREW HEX. HD.	2	
12	AVL901862	SCREW HEX. HD.	4	
13	AVL902838	FLAT HEAD SCREW	6	
14	AVL902840	FLAT HEAD SCREW	4	
15	AVL902682	ALAN SCREW	2	
16	AVL903719	WASHER	2	

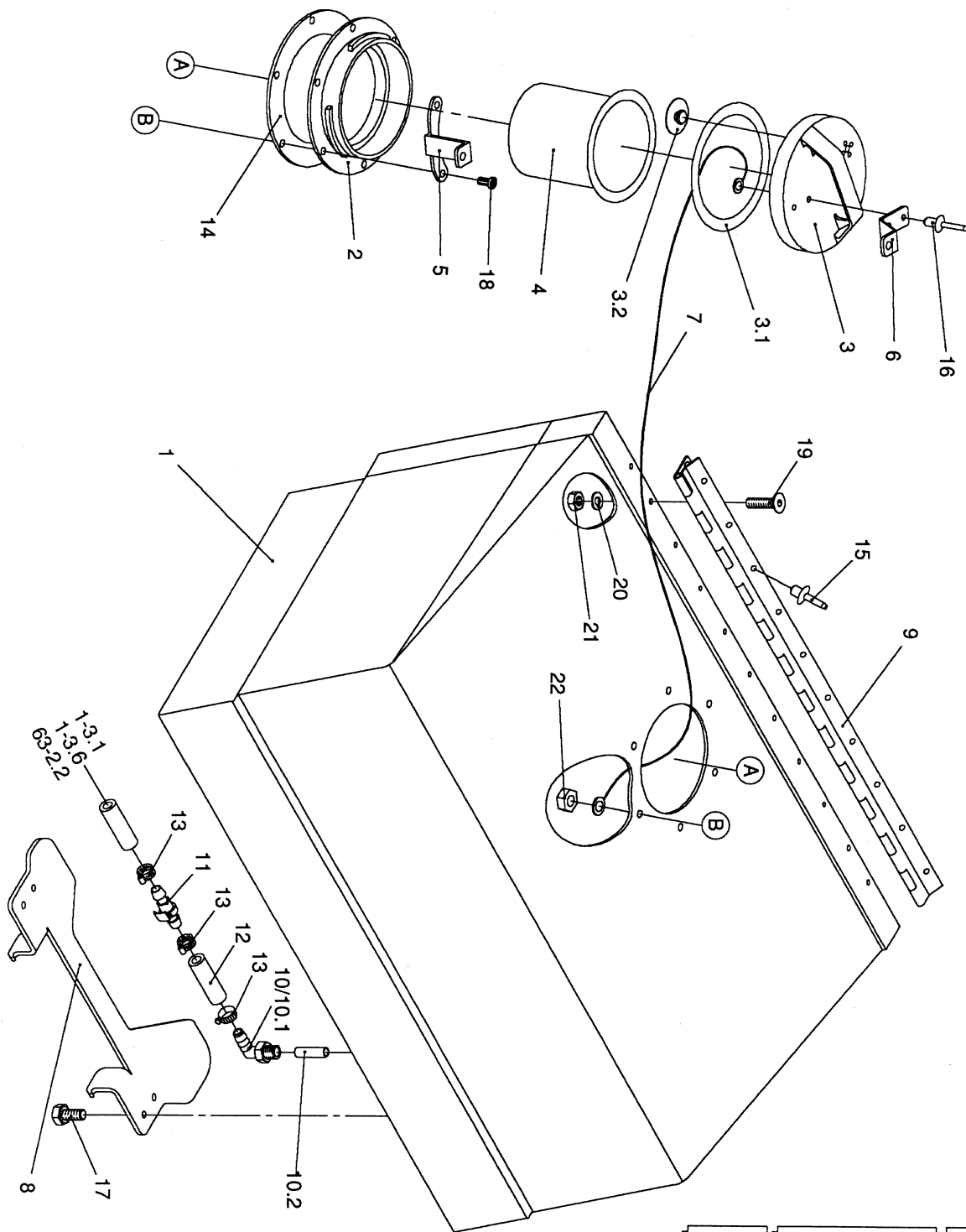


2-1.1  
ENGINE HOOD

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL236393	HOOD	1	
2	AVL236741	TENSION BOW	1	
3	AVL341617	HINGE	1	
4	AVL236899	HOOD REINFORCEMENT	1	
5	AVL236900	HOOD REINFORCEMENT	1	
6	AVL824922	FENDER	1	
7	AVL820566	BRACKET	1	
8	AVL495063	HANDLE	1	
9	AVL592048	HOSE	1	
10	AVL591376	PROFILED JOINT	2	
11	AVL591372	PROFILED JOINT	2	
12	AVL591373	PROFILED JOINT	1	
13	AVL944100	SPACER	4	
14	AVL920029	HOSE CLAMP	2	
15	AVL922556	BLIND RIVETING	9	
16	AVL944171	BLIND RIVETING	8	
17	AVL922894	SCREW HEX. HD.	4	
18	AVL901756	SCREW HEX. HD.	2	
19	AVL901757	SCREW HEX. HD.	9	
20	AVL901765	SCREW HEX. HD.	6	
21	AVL902839	FLAT HEAD SCREW	6	
22	AVL902122	NUT HEX.	6	
23	AVL902123	NUT HEX.	11	
24	AVL902284	WASHER	9	
25	AVL902300	WASHER	2	
26	AVL902263	WASHER	6	
27	AVL922953	WIRE CALBE	1	
28	AVL922952	PRESSURE CLAMP	4	



# FRONT WATER TANK

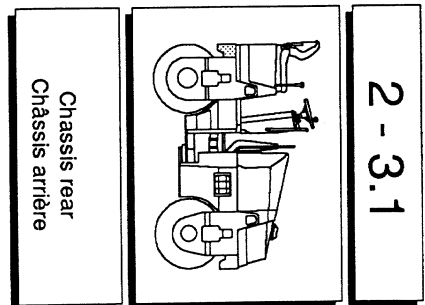
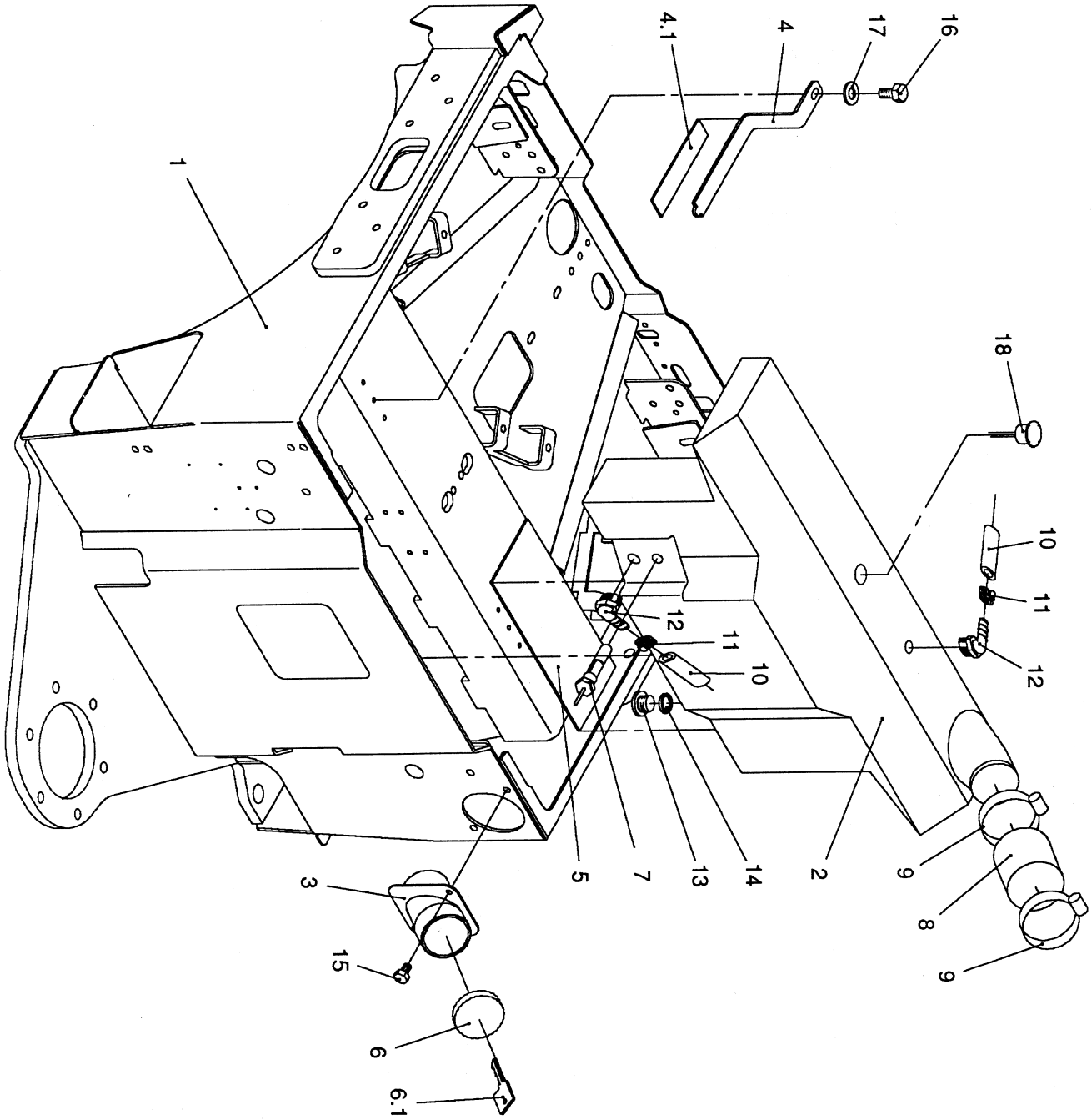


Water tank Réservoir à eau		2 - 2.1
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2-2.1  
FRONT WATER TANK

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL236548	WATER TANK	1	
2	AVL222531	COVER NECK	1	
3	AVL592433	COVER COMPLETE	1	
3.1	AVL824815	GASKET	1	
3.2	AVL493810	RUBBER DIAPHRAGME	1	
4	AVL824900	SIEVE	1	
5	AVL828021	PLATE	1	
6	AVL828020	PLATE	1	
7	AVL828028	LACK PIN	1	
8	AVL366155	BRACKET	1	
9	AVL365123	HINGE	1	
10	AVL824009	REDUCER COMPLETE	1	
10.1	AVL909398	REDUCER	1	
10.2	AVL591838	TUBE	1	
11	AVL922836	QUICK RELEASE COUPLING	1	
12	AVL903792	HOSE	1	
13	AVL908157	HOSE CLAMP	3	
14	AVLCO3005001	GASKET	1	
15	AVL922556	BLIND RIVETING	10	
16	AVL944171	BLIND RIVETING	2	
17	AVL901762	SCREW HEX. HD.	4	
18	AVL902639	ALAN SCREW	6	
19	AVL902970	COUNTERSUNK SCREW	11	
20	AVL902284	WASHER	11	
21	AVL902123	NUT HEX.	11	
22	AVL902124	NUT HEX.	6	

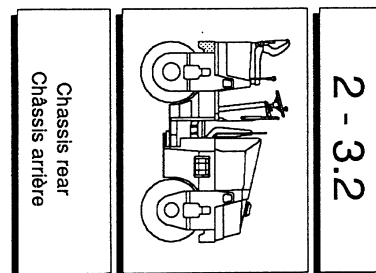
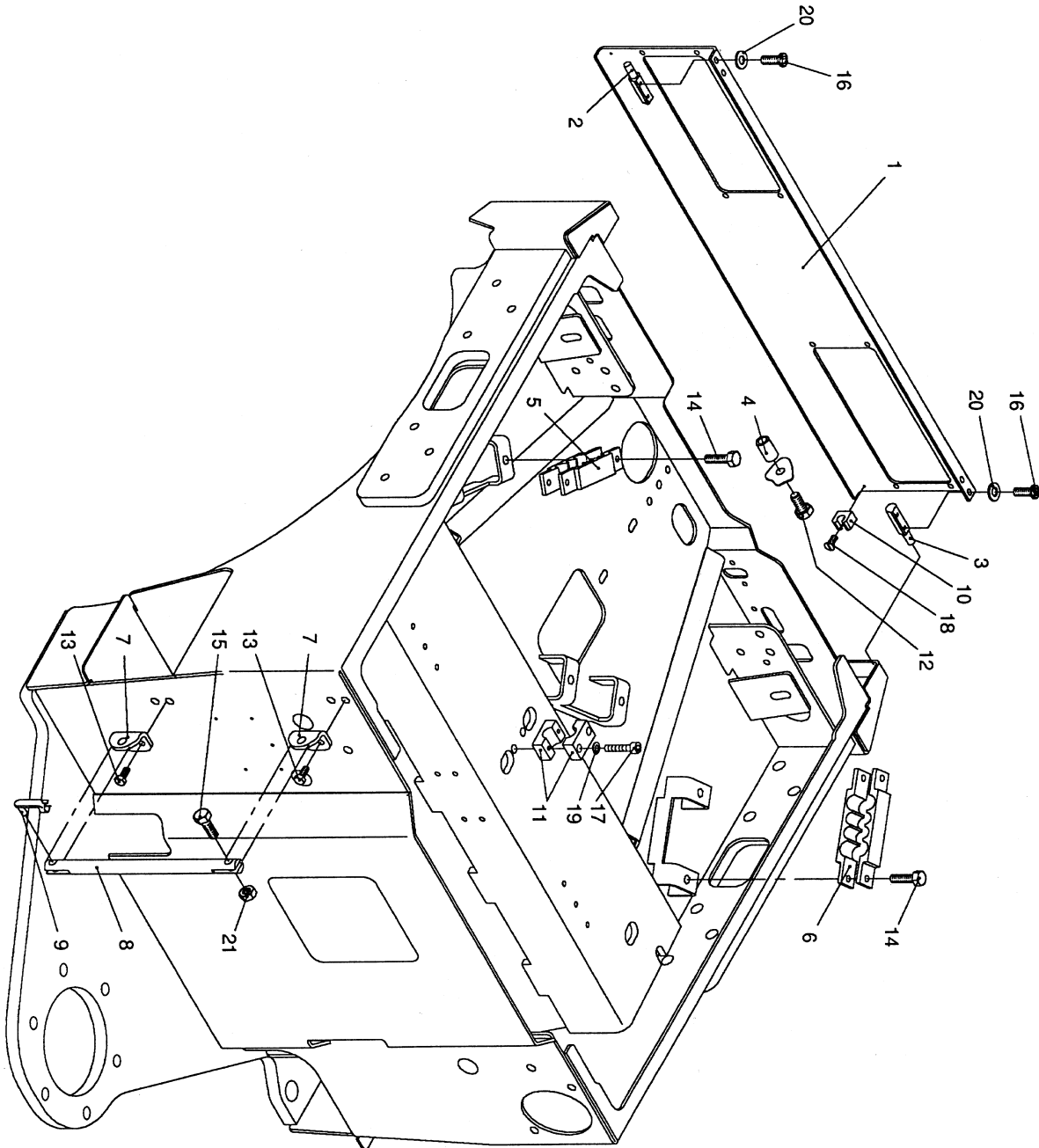
# CHASSIS REAR



2-3.1  
CHASSIS REAR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL135549	REAR FRAME	1	
2	AVL135277	FUEL TANK	1	
3	AVL365695	FILLER NECK	1	
4	AVL824201	BRACKET	1	
4.1	AVL923404	PROFILE	1	
5	AVL591345	PLATE	1	
6	AVL922302	TANK CLOSURE	1	
6.1	AVL921970	KEY	1	
7	AVL494824	FLOAT SWITCH	1	
8	AVL591315	HOSE	1	
9	AVL903780	HOSE CLAMP	2	
10	AVL591473	HOSE	2	
11	AVL903807	HOSE CLAMP	2	
12	AVL906102	REDUCER	2	
13	AVL906543	CAP SCREW	1	
14	AVL906749	GASKET	1	
15	AVL901763	SCREW HEX. HD.	2	
16	AVL901772	SCREW HEX. HD.	1	
17	AVL902264	WASHER	1	
18	AVL495098	FUEL LEVEL CONTROL	1	

# CHASSIS REAR

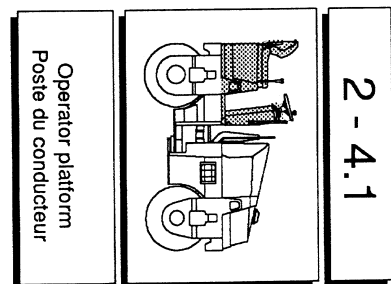
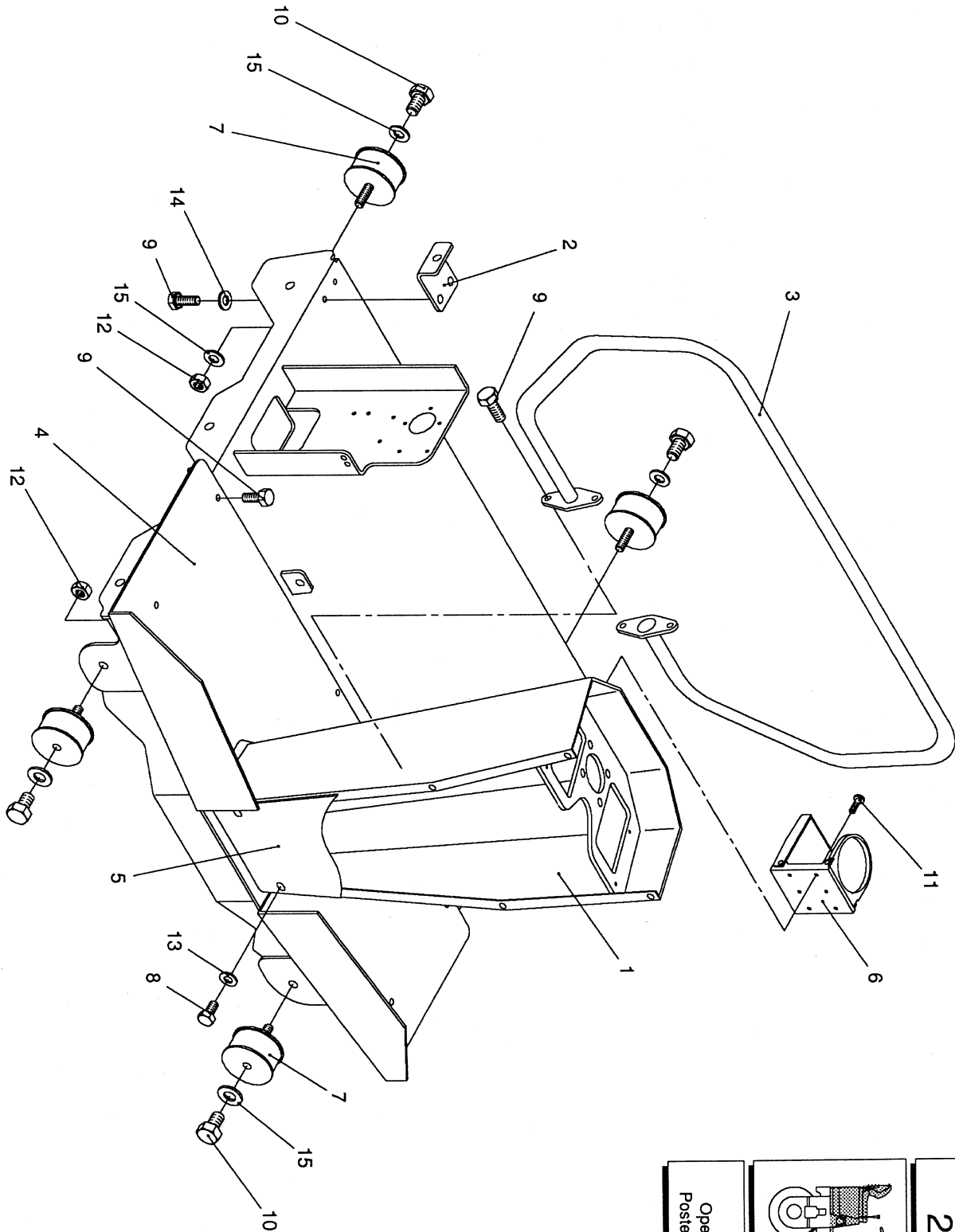


## 2-3.2

## CHASSIS REAR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL365974	REAR COVER	1	
2	AVL824936	HINGE	1	
3	AVL824937	HINGE	1	
4	AVL820281	CORE (CONNECTOR)	2	
5	AVL803771	STRAP	2	
6	AVL803772	STRAP	2	
7	AVL820537	BRACKET	2	
8	AVL341669	FIXING DEVICE	1	
9	AVL903668	ES BOLT	1	
10	AVL906194	CLAMP	2	
11	AVL903726	HALF BOWL	2	
12	AVL901762	SCREW HEX. HD.	2	
13	AVL901763	SCREW HEX. HD.	4	
14	AVL901766	SCREW HEX. HD.	4	
15	AVL901784	SCREW HEX. HD.	1	
16	AVL922992	CHEESE HEAD SCREW	4	
17	AVL902682	ALAN SCREW	2	
18	AVL902919	COUNTERSUNK SCREW	2	
19	AVL903719	WASHER	2	
20	AVL902262	WASHER	4	
21	AVL902126	NUT HEX.	1	

# OPERATOR PLATFORM

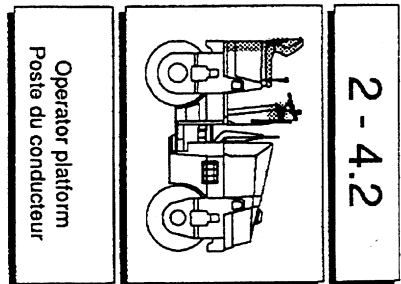
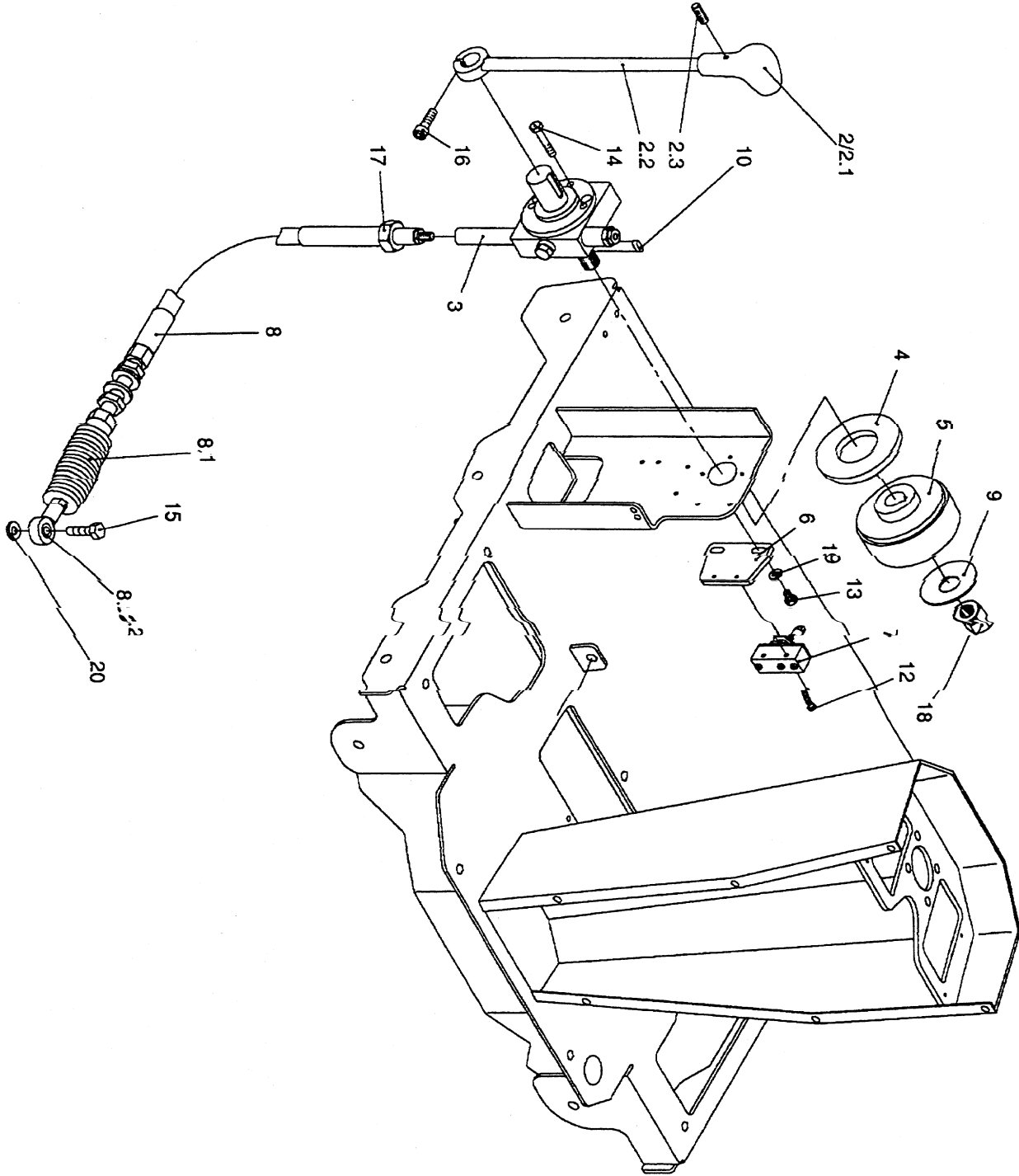


2-4.1  
OPERATOR PLATFORM

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL236852	OPERATOR STAND	1	
2	AVL820467	TANK SUPPORT	2	
3	AVL365588	HAND RAIL	1	
4	AVL365592	PLATE	1	
5	AVL365591	PLATE	1	
6	AVL495097	BOTTLE BRACKET	1	
7	AVL922310	ISOLATION MOUNTING	4	
8	AVL901755	SCREW HEX. HD.	6	
9	AVL901763	SCREW HEX. HD.	16	
10	AVL901763	SCREW HEX. HD.	4	
11	AVL901780	FLAT HEAD SCREW	3	
12	AVL902126	NUT HEX	4	
13	AVL902262	WASHER	6	
14	AVL902263	WASHER	4	
15	AVL902265	WASHER	6	

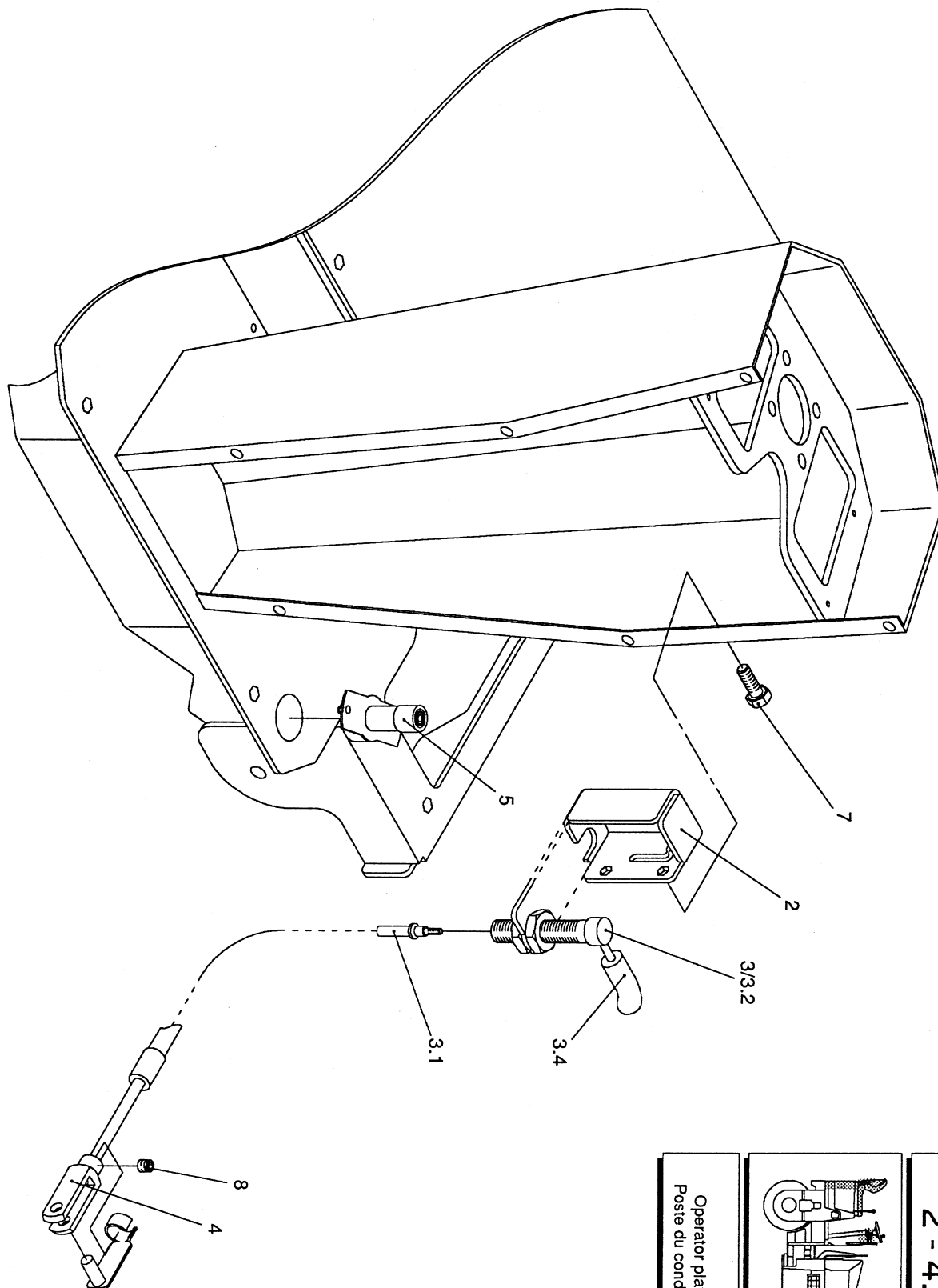


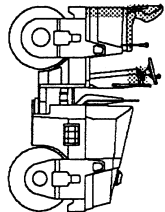
# OPERATOR PLATFORM



2-4.2  
OPERATOR PLATFORM

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL823429	DRIVER LEVER	1	
2.1	AVL495049	HANDLE	1	
2.2	AVL824502	LEVER	1	
2.3	AVL903225	HEXAGON ALAN PIN	1	
3	AVL494814	TRANSMITTER	1	
4	AVL491343	BRAKE LINER	1	
5	AVL341861	BRAKE DISK	1	
6	AVL803447	BRACKET	1	
7	AVL491401	SWITCH	1	
8	AVL494810	CABLE WIRE	1	
8.1	AVLT889	BELLOW	1	
8.2	AVL908922	JOINT	1	
9	AVL902368	DISK SPRING	1	
10	AVL903812	KEY	1	
12	AVL922643	SCREW HEX. HD.	2	
13	AVL901755	SCREW HEX. HD.	2	
14	AVL906214	SCREW HEX. HD.	3	
15	AVL901764	SCREW HEX. HD.	1	
16	AVL902633	ALAN SCREW	1	
17	AVL921375	NUT HEX.	1	
18	AVL902212	NUT HEX.	1	
19	AVL902262	WASHER	2	
20	AVL902263	WASHER	1	

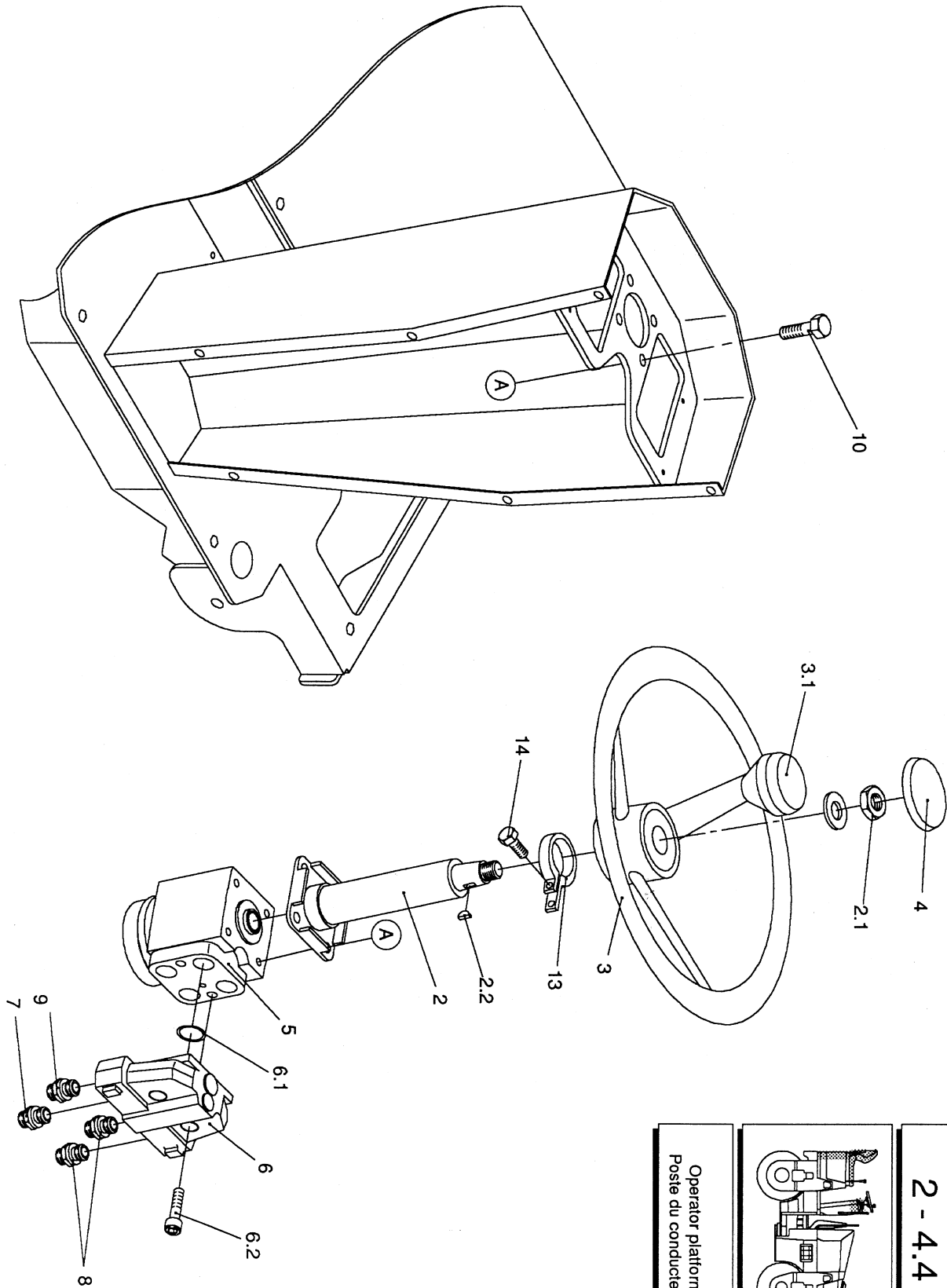


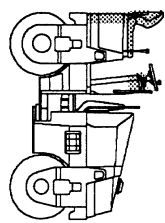
Operator platform Poste du conducteur		2 - 4.3
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2-4.3

## OPERATOR PLATFORM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	AVL365504	DRIVE LEVER BRACKET	1	
3	AVL390470	DRIVE LEVER	1	
3.1	AVLAM1667-146DG	TRANSMITTER	1	
3.2	AVLAM1667-146AZ-2	CABLE WIRE	1	
3.3	AVL922969	YOKE ENDS	1	
3.4	AVL944072	HANDLE	1	
4	AVL820105	YOKE ENDS	1	
5	AVL922735	FEET SWITCH	1	
7	AVL922616	ALAN SCREW	1	
8	AVL903247	HEXAGON ALAN PIN	1	

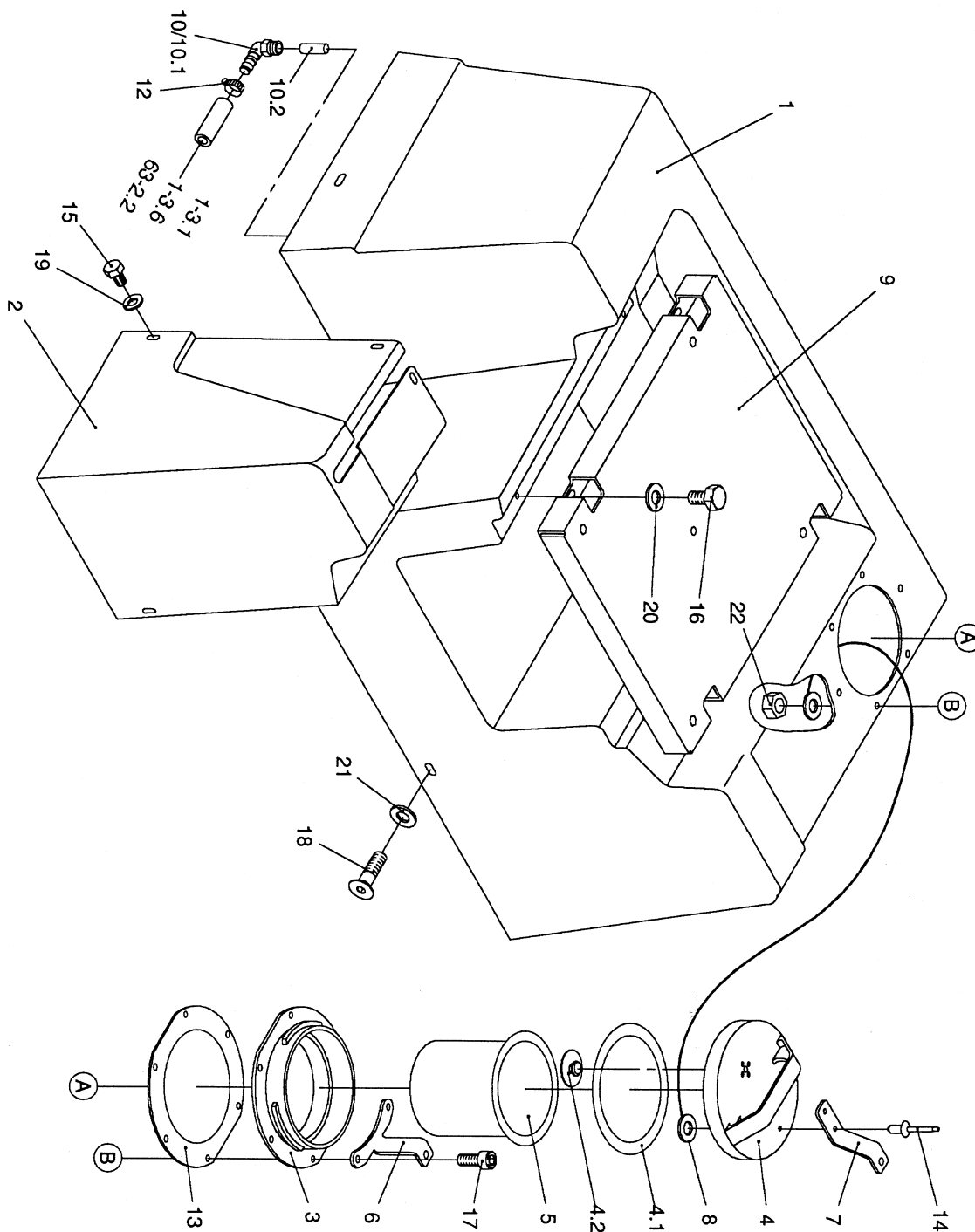


2 - 4.4		Operator platform Poste du conducteur
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2-4.4  
OPERATOR PLATFORM

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL472012	STEERING SHAFT	1	
2.1	AVL902182	NUT HEX.	1	
2.2	AVL903977	WOODRUFF KEY	1	
3	AVL494618	STEERING WHEEL	1	
3.1	AVL922223	HANDLE	1	
4	AVL494619	COVER	1	
5	AVL493622	STEERING VALVE	1	
6	AVL491411	RELIEF VALVE	1	
6.1	AVL906695	SEAL	4	
6.2	AVL908923	ALAN SCREW	1	
7	AVL901084	REDUCER	1	
8	AVL901389	REDUCER	2	
9	AVL901390	REDUCER	1	
10	AVL901776	SCREW HEX. HEAD	4	
13	AVL820097	CLAMP	1	
14	AVL901756	SCREW HEX. HEAD	1	

# REAR WATER TANK



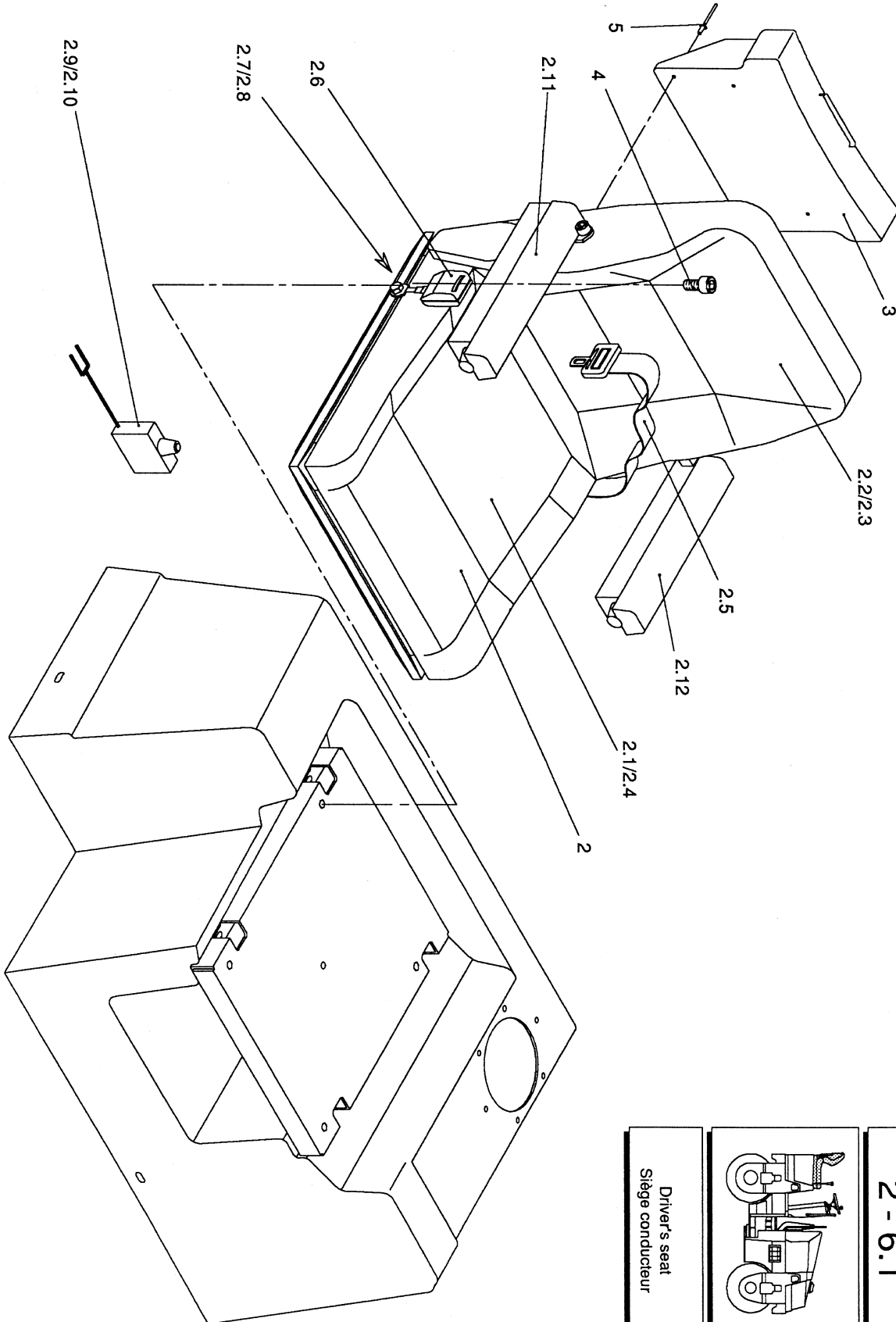
2 - 5.1		Water tank Réservoir à eau
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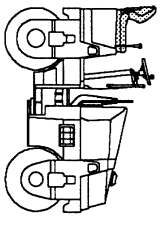
# REAR WATER TANK

## 2-5.1 REAR WATER TANK

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL236501	WATER TANK	1	
2	AVL365157	COVER	1	
3	AVLCO2575000	COVER NECK	1	
4	AVL592433	COVER COMPLETE	1	
4.1	AVL824815	GASKET	1	
4.2	AVL493810	RUBBER DIAPHRAGME	1	
5	AVL824900	SIEVE	1	
6	AVL828021	PLATE	1	
7	AVL828020	PLATE	1	
8	AVL828028	LACK PIN	1	
9	AVL365797	SEAT CONSOLE	1	
10	AVL824009	REDUCER COMPLETE	1	
10.1	AVL909398	REDUCER	1	
10.2	AVL591838	TUBE	1	
12	AVL908157	HOSE CLAMP	1	
13	AVLCO3005002	GASKET	1	
14	AVL944171	BLIND RIVETING	2	
15	AVL901754	SCREW HEX. HEAD	5	
16	AVL901761	SCREW HEX. HEAD	4	
17	AVL902639	ALAN SCREW	6	
18	AVL902975	COUNTERSUNK SCREW	4	
19	AVL902262	WASHER	5	
20	AVL902263	WASHER	4	
21	AVL922315	WASHER	4	
22	AVL902124	NUT HEX.	6	



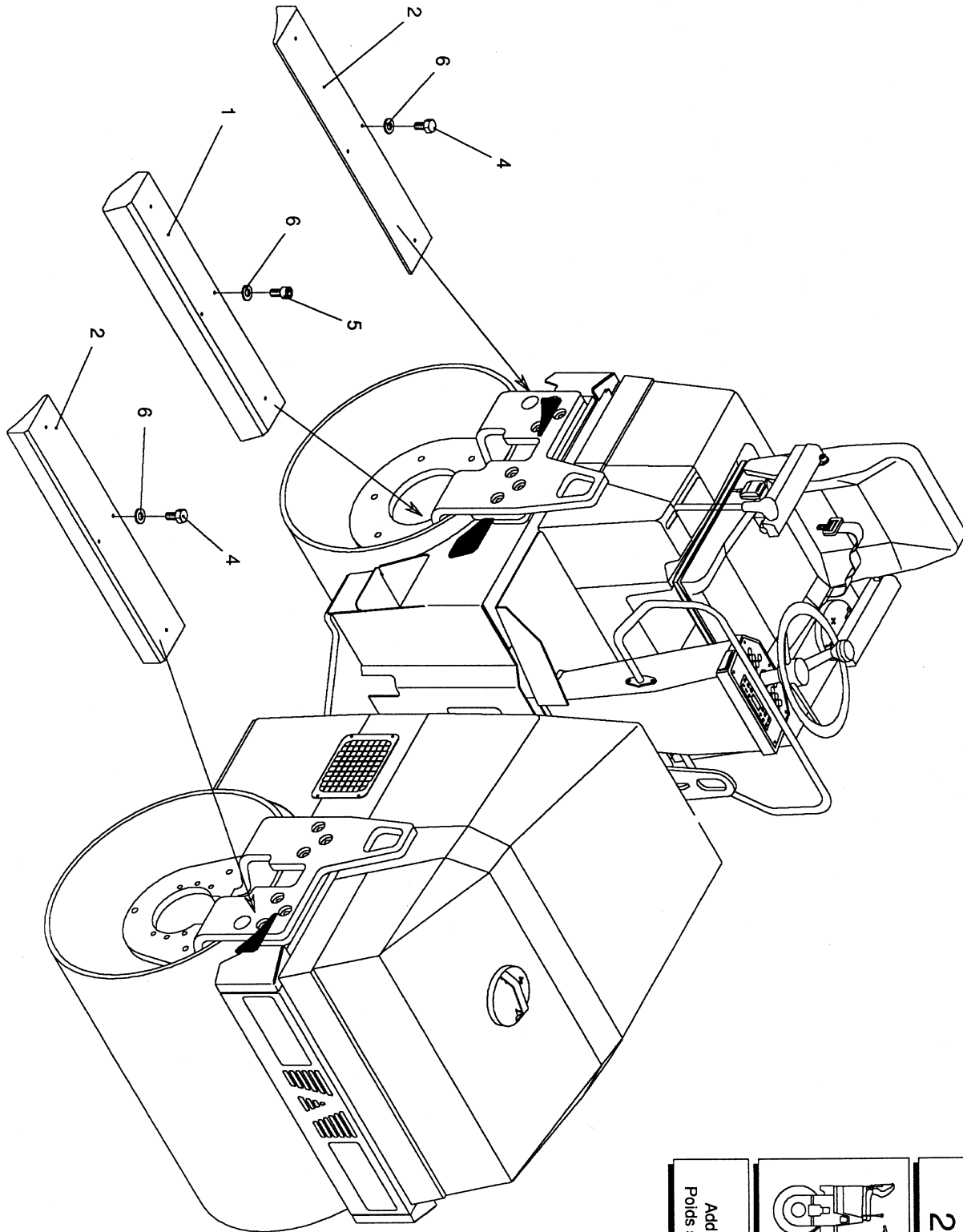


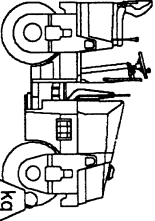
2 - 6.1

Driver's seat Siege conducteur

2-6.1

**DRIVER'S SEAT**

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL390505	DRIVER'S SEAT	1	
3	AVL390536	TOOL BOX	1	
4	AVL902640	ALAN SCREW	4	
5	AVL903680	BLIND RIVETING	4	



Additional weight Poids supplémentaire		2 - 9.1
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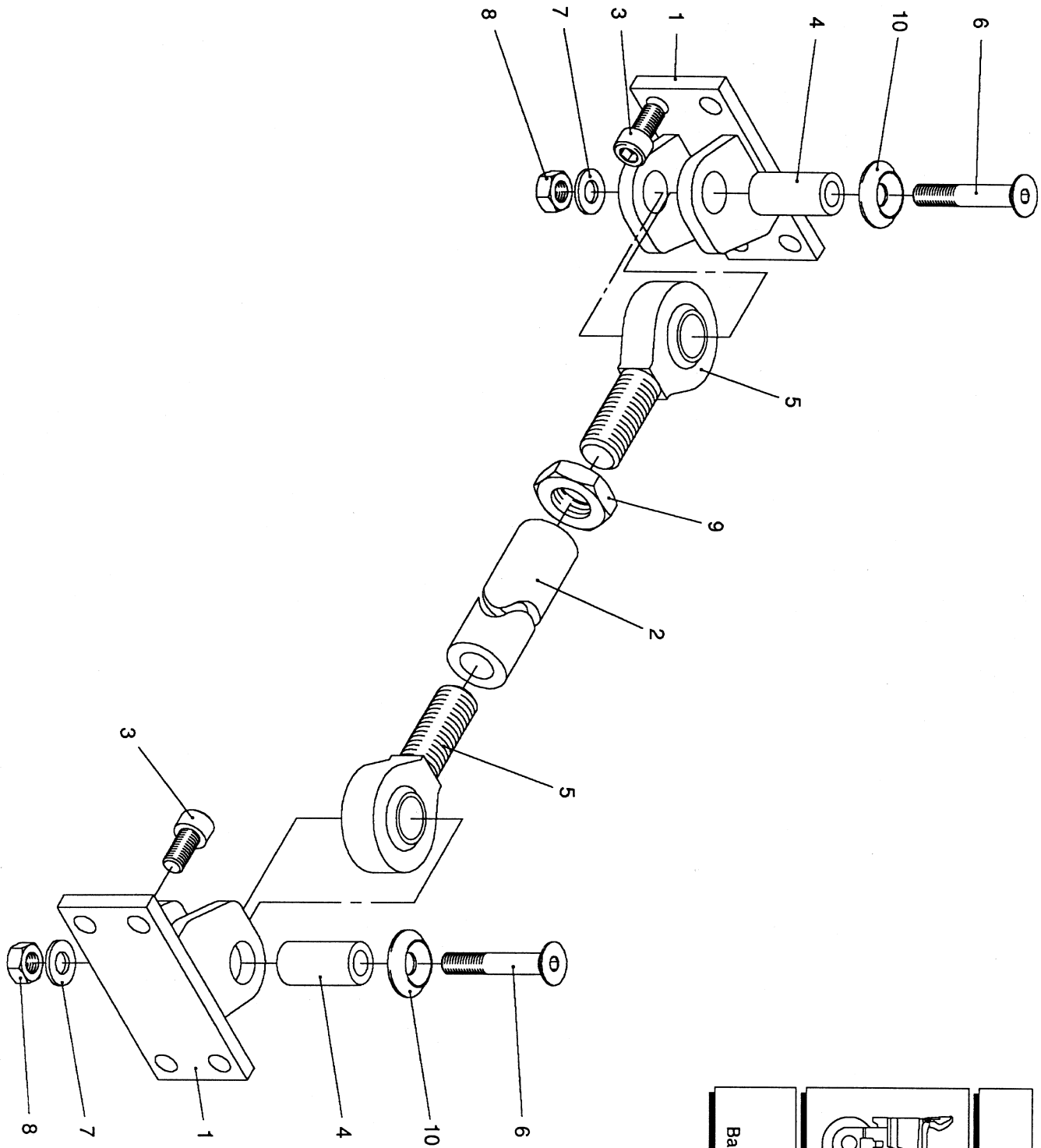
## ADDITIONAL WEIGHT

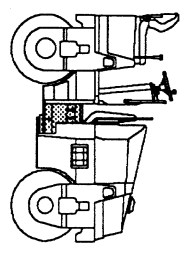
2-9.1

### ADDITIONAL WEIGHT

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL341719	ADDITIONAL WEIGHT, T33	1	
2	AVL341723	ADDITIONAL WEIGHT, T33	2	
4	AVL901773	SCREW HEX. HEAD	8	
5	AVL902645	ALAN SCREW	4	
6	AVL902264	WASHER	12	

# STABILIZER BAR



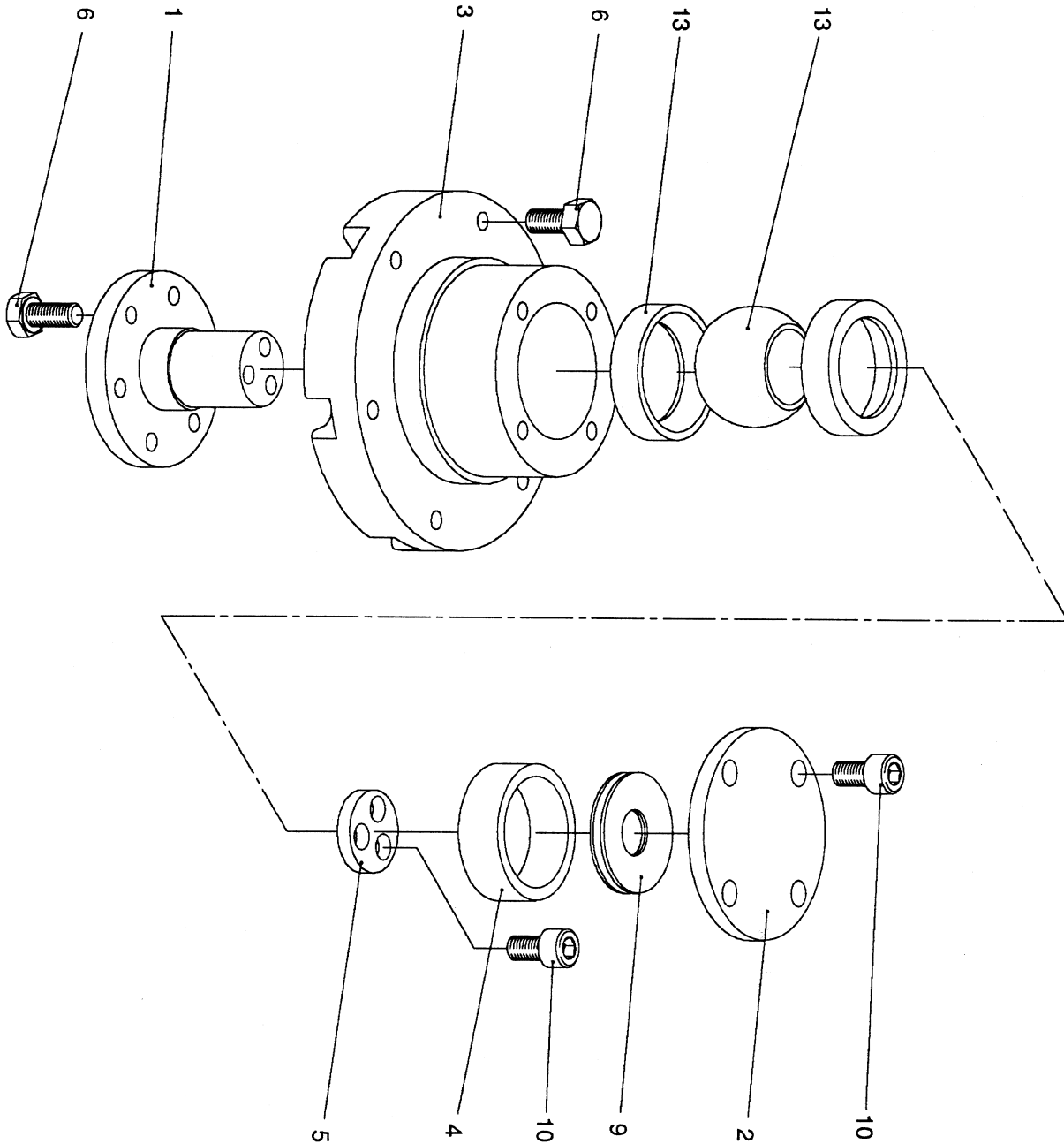
3 - 0.1		Stabilizer bar Bar de stabilisation
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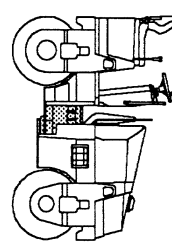
3-0.1

**STABILIZER BAR**

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL341546	BRACKET	2	
2	AVL803766	TUBE	1	
3	AVL902645	ALAN SCREW	8	
4	AVL909431	DOWEL PIN	2	
5	AVL903706	JOINT ROD END	2	
6	AVL902988	COUNTERSUNK SCREW	2	
7	AVL902286	WASHER	2	
8	AVL902125	NUT HEX.	2	
9	AVL902183	NUT HEX.	1	
10	AVL921370	WASHER	2	

# ARTICULATING JOINT



Articulating joint Articulation centrale		3 - 0.2
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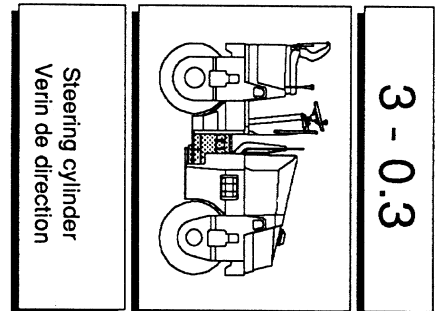
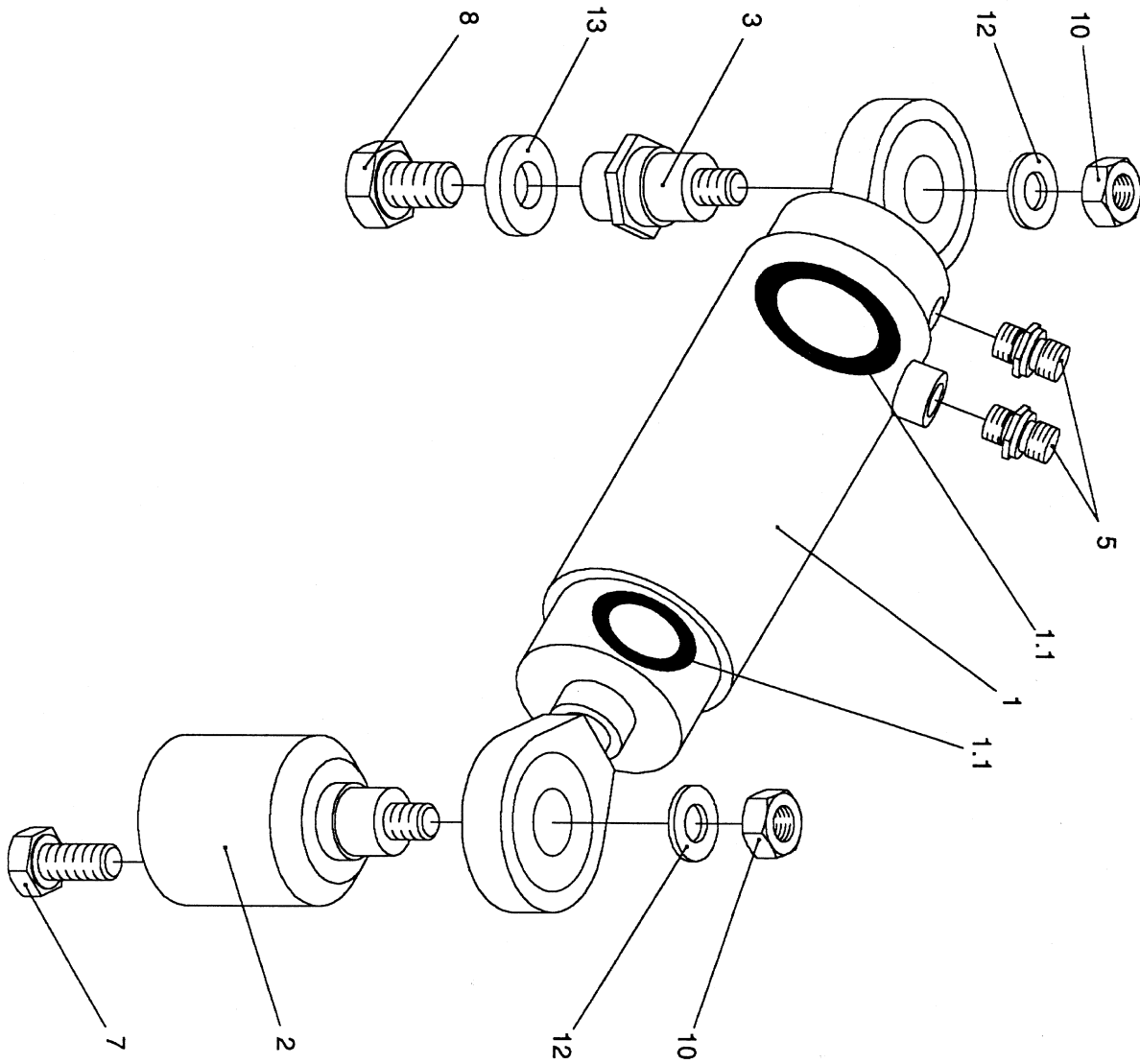
3-0.2

## ARTICULATING JOINT

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL341483	SUPPORT	1	
2	AVL803676	WASHER	1	
3	AVL341486	OSCILLATING STOP	1	
4	AVL803677	RING	1	
5	AVL803678	WASHER	6	
6	AVL901801	SCREW HEX. HEAD	12	
9	AVL902377	DISK SPRING	2	
10	AVL902660	ALAN SCREW	7	
13	AVL494800	JOINT BEARING	1	



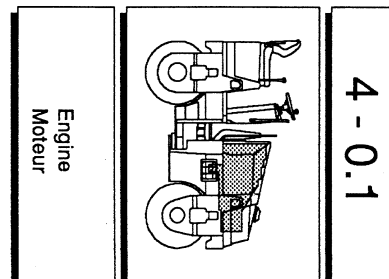
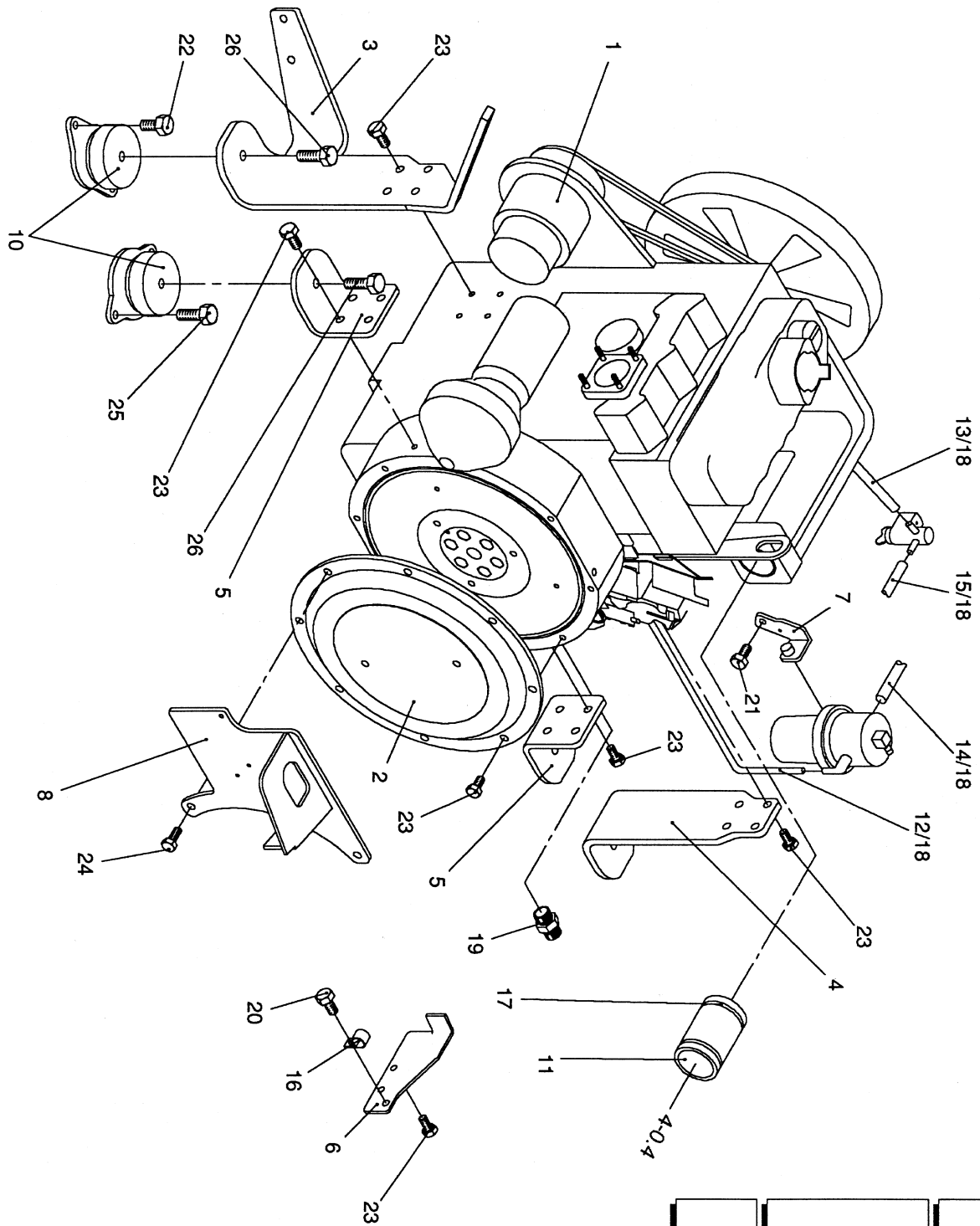
# STEERING CYLINDER



3-0.3

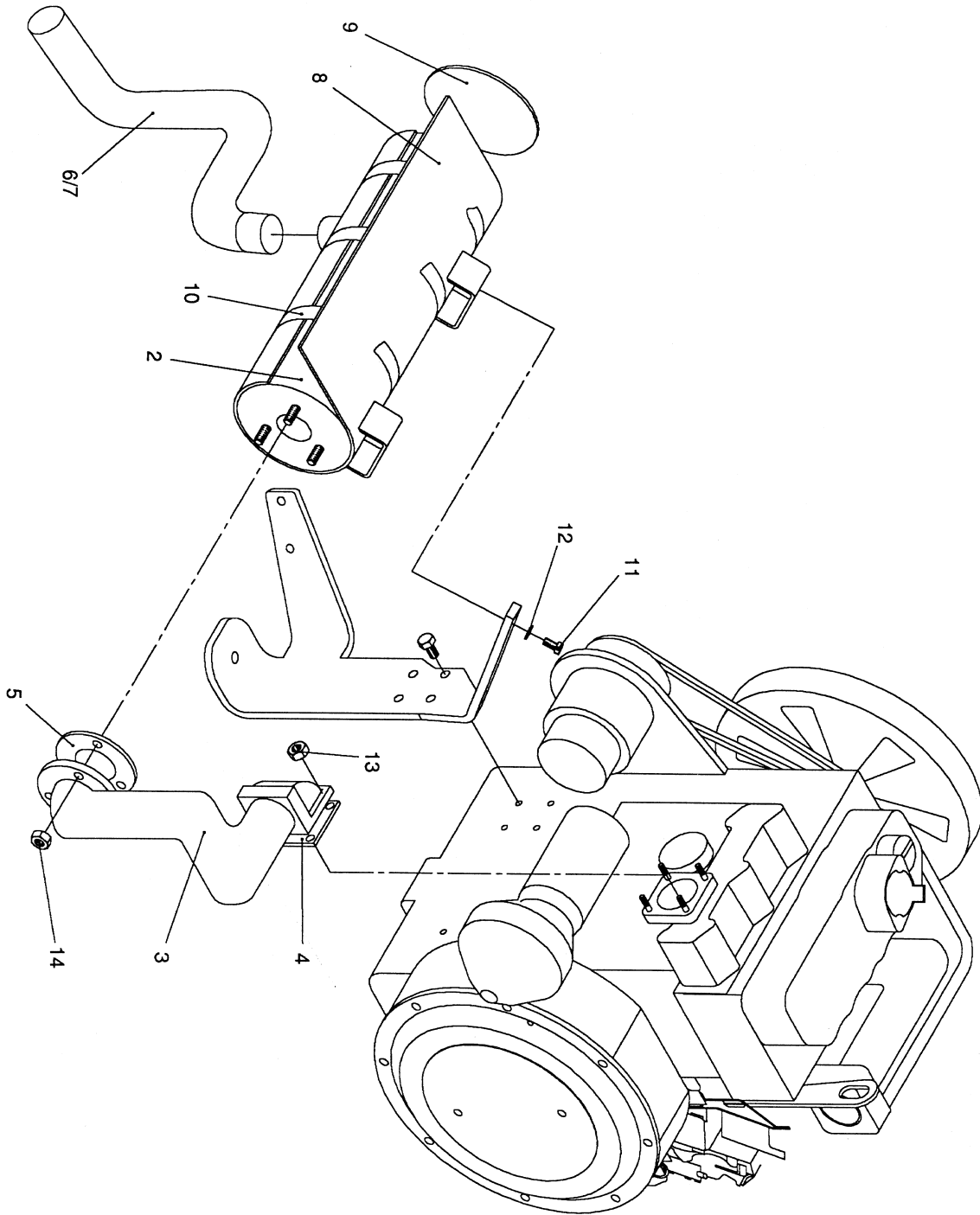
## STEERING CYLINDER

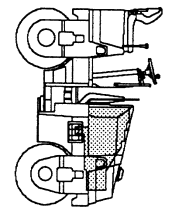
<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL390480	HYDRAULIC CYLINDER	1	
1.1	AVL923046	SEAL KIT	1	
2	AVL803814	MOUNTING	1	
3	AVL591046	JOURNAL COMPLETE	1	
3.1	AVL803815	JOURNAL	1	
5	AVL901745	REDUCER	2	
7	AVL901800	SCREW HEX. HEAD	4	
8	AVL901811	SCREW HEX. HEAD	1	
10	AVL902128	NUT HEX.	2	
12	AVL922314	WASHER	2	
13	AVL922347	WASHER	1	



4-0.1  
ENGINE

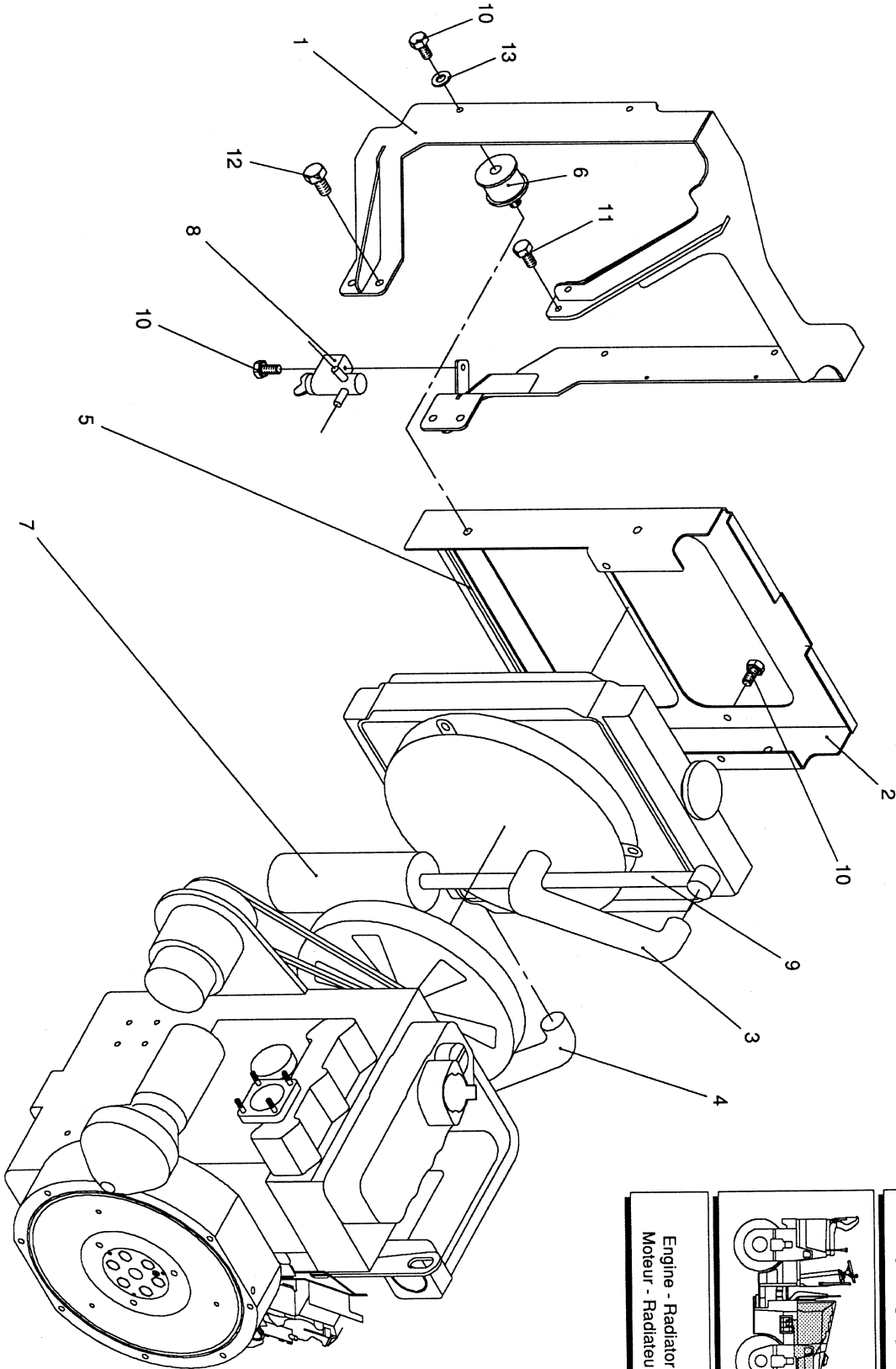
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL190026	DIESEL ENGINE, YANMAR 3TNE88	1	
2	AVL390416	FLANGE	1	
3	AVL365977	ENGINE SUPPORT	1	
4	AVL365748	ENGINE SUPPORT	1	
5	AVL824890	ENGINE SUPPORT	2	
6	AVL820593	BRACKET	1	
7	AVL803969	BRACKET	1	
8	AVL366256	BRACKET	1	
10	AVL491740	ISOLATION MOUNTING	4	
11	AVL592048	HOSE	1	
12	AVL591313	HOSE	1	
13	AVL591356	HOSE	1	
14	AVL591357	HOSE	1	
15	AVL591358	HOSE	1	
16	AVL901418	HOSE CLAMP	1	
17	AVL920029	HOSE CLAMP	2	
18	AVL903807	HOSE CLAMP	8	
19	AVL901085	REDUCER	1	
20	AVL901763	SCREW HEX. HEAD	1	
21	AVL901865	SCREW HEX. HEAD	2	
22	AVL901772	SCREW HEX. HEAD	4	
23	AVL901773	SCREW HEX. HEAD	23	
24	AVL901774	SCREW HEX. HEAD	3	
25	AVL901776	SCREW HEX. HEAD	4	
26	AVL901782	SCREW HEX. HEAD	4	

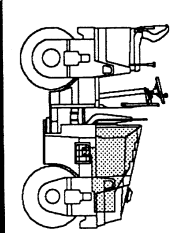


Motor Engine Moteur		4 - 0.2
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4-0.2  
ENGINE

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	12913113520	MUFFLER	1	
3	AVL34177	EXHAUST MANIFOLD	1	
4	12470111911	GASKET	1	
5	10395413201	GASKET	1	
6	AVL236894	EXHAUST PIPE	1	
7	AVL921285	PIPE CLAMP COMPLETE	2	
8	AVL341794	SOUND PROTECTION	1	
9	AVL820038	SOUND PROTECTION	1	
10	AVL922884	HOSE CLIP	3	
11	AVL901762	SCREW HEX. HEAD	4	
12	AVL902263	WASHER	4	
13	AVL902124	NUT HEX.	4	
14	AVL902125	NUT HEX.	3	



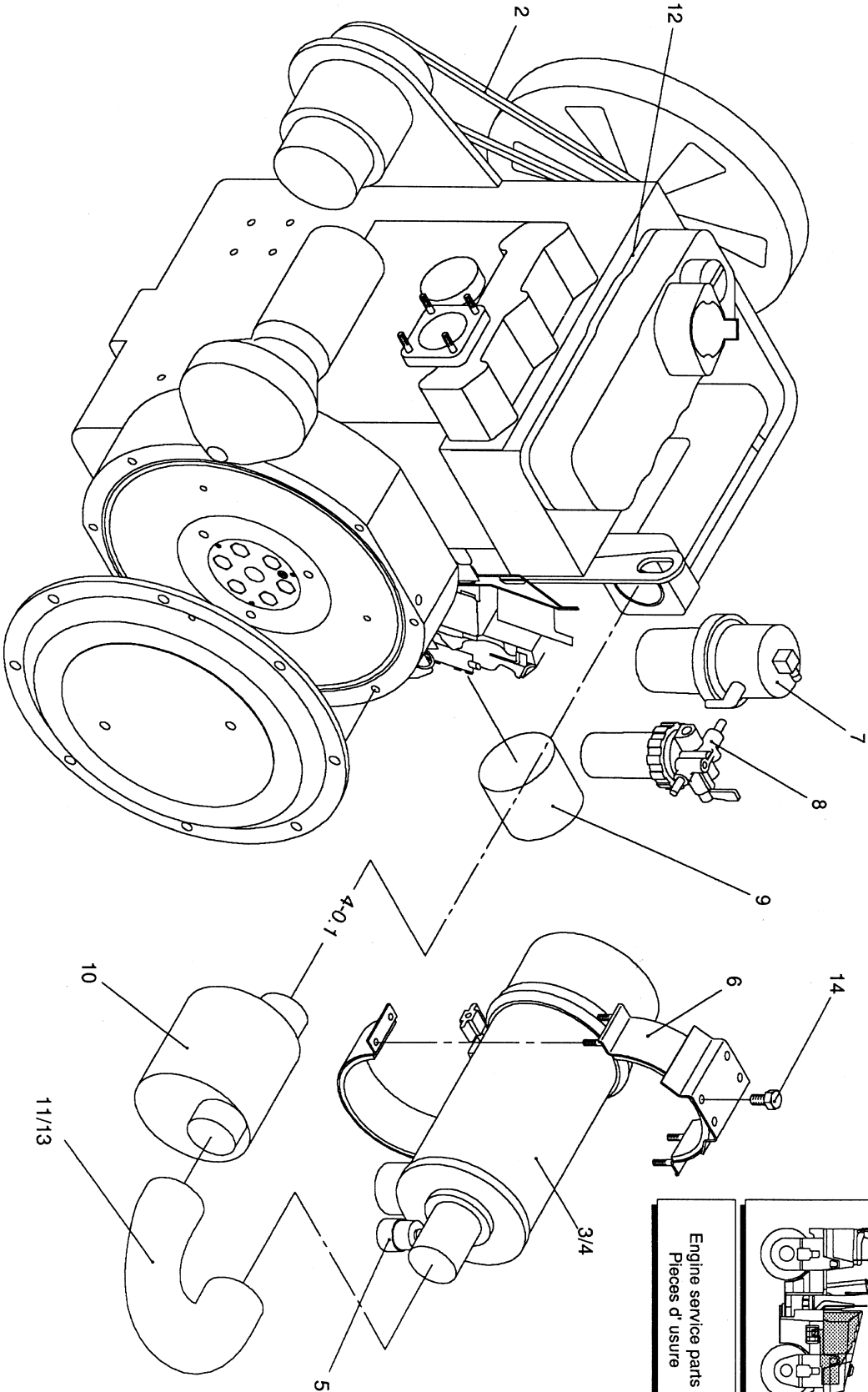
4 - 0.3

Engine - Radiator Moteur - Radiateur

4-0.3

**ENGINE - RADIATOR**

<b><u>NO</u></b>	<b><u>PART NO</u></b>	<b><u>PART NAME</u></b>	<b><u>QTY.</u></b>	<b><u>REMARKS</u></b>
1	AVL366153	BRACKET	1	
2	AVL366154	BRACKET HOLDER	1	
3	AVL820059	HOSE	1	
4	AVL390425	HOSE	1	
5	AVL591374	PROFILED JOINT	1	
6	AVL907542	ISOLATION MOUNTING	4	
7	12440544510	EXPANSIVE BOTTLE	1	
8	12915049100	HOSE TAPE	1	
9	AVL591355	HOSE	1	
10	AVL901761	SCREW HEX. HEAD	7	
11	AVL901762	SCREW HEX. HEAD	2	
12	AVL901774	SCREW HEX. HEAD	4	
13	AVL902263	WASHER	4	



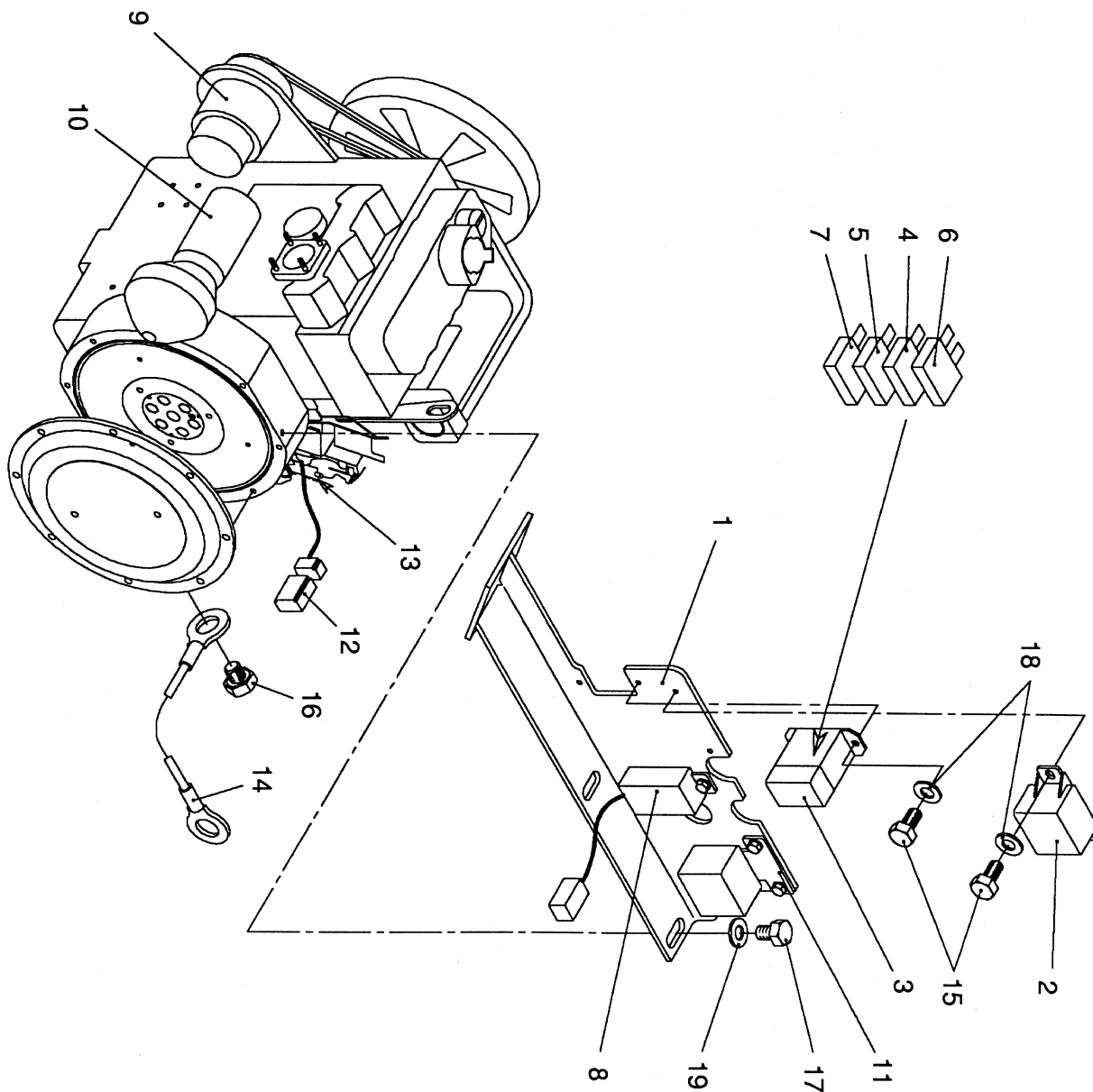


Engine service parts Pièces d' usure		4 - 0.4
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4-0.4

## ENGINE SERVICE PARTS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	12473242290	V-BELT	1	
3	12112012901	AIR CLEANER	1	
4	12142212570	AIR FILTER INNER	1	
5	12665012680	INDICATOR	1	
6	AVL390423	AIR CLEANER BRACKET	1	
7	12910055650	FUEL FILTER	1	
8	12185055710	FILTER	1	
9	12915035151	OIL FILTER	1	
10	12185512060	MUFFLER	1	
11	17135112210	HOSE	1	
12	12915011310	VALVE BONNET SEAL	1	
13	AVL920029	HOSE CLAMP	2	
14	AVL901763	SCREW HEX. HEAD	4	

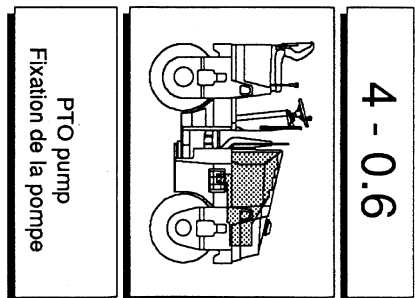
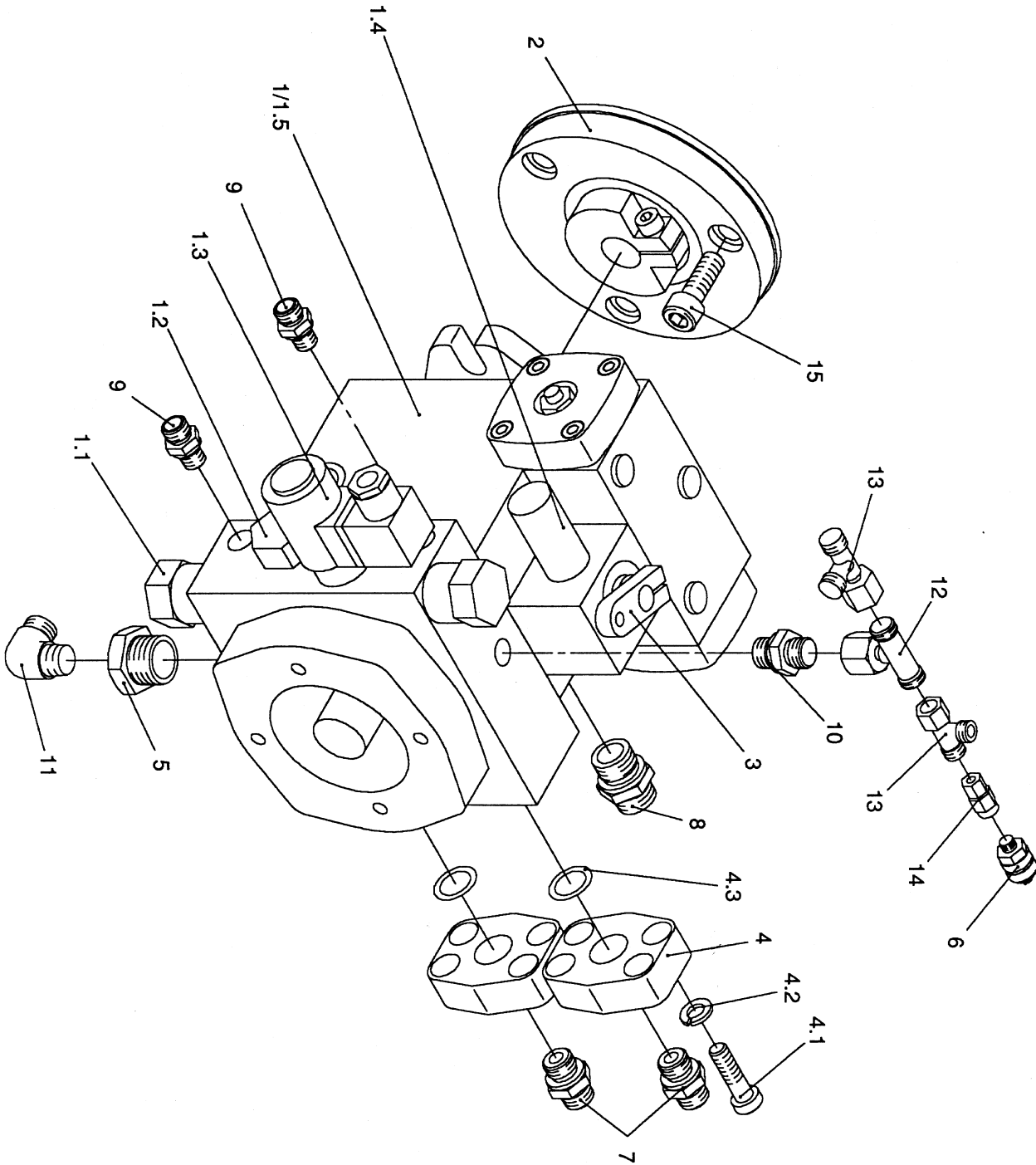


4 - 0.5		Engine - Electric comp. Moteur - comp. électriques
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4-0.5

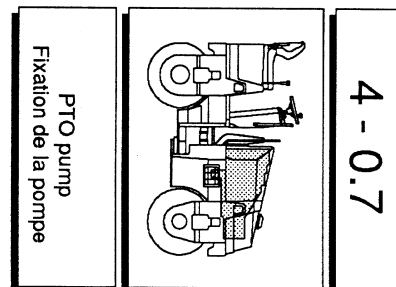
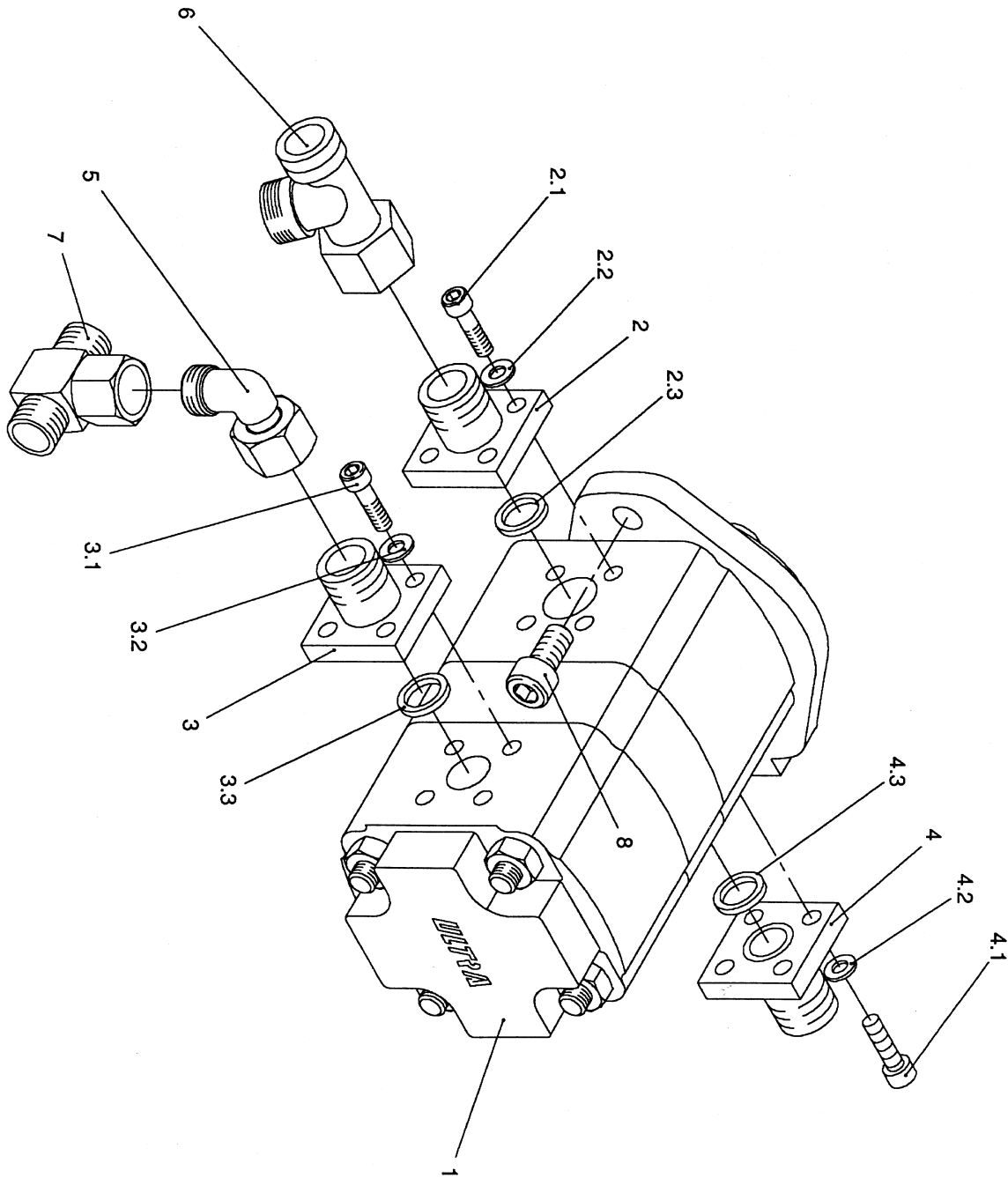
ENGINE – ELECTRIC COMP.

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL341823	EXHAUST PIPE BRACKET	1	
2	AVL493837	RELAY	1	
3	AVL494864	FUSE BOX	1	
4	AVL921718	FUSE, 7.5 AMP	1	
5	AVL921584	FUSE, 15 AMP	1	
6	AVL922713	FUSE, 30 AMP	1	
7	AVL921584	FUSE, 15 AMP	1	
8	11963277920	TIMER	1	
9	12912977010	STARTER MOTOR	1	
10	12977277200	ALTERNATOR	1	
11	11965077100	RELAY	1	
12	11964366900	DIODE	1	
13	11962966800	START / STOP SOLENOID	1	
14	AVL479661	CONNECTION CABLE	1	
15	AVL901751	SCREW HEX. HEAD	7	
16	AVL901770	SCREW HEX. HEAD	1	
17	AVL901772	SCREW HEX. HEAD	2	
18	AVL902261	WASHER	7	
19	AVL902264	WASHER	4	



4-0.6  
PTO PUMP

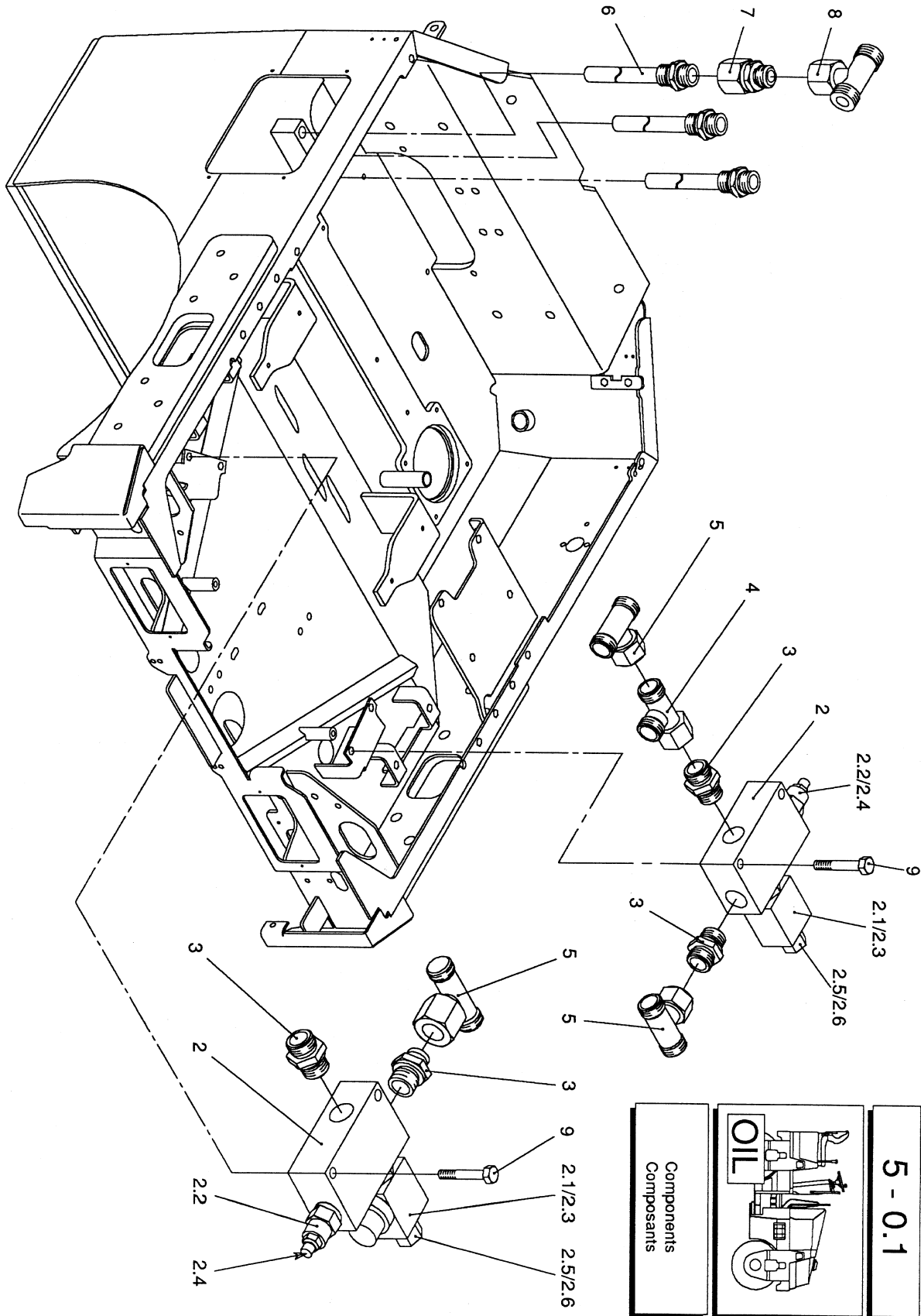
<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL390527	VARIABLE DISPLACEMENT PUMP	1	
1.1	AVL09447133	VALVE HIGH PRESSURE	2	
1.2	AVL09434636	VALVE LOW PRESSURE	1	
1.3	AVL09609956	EMERGENCY STOP VALVE	1	
1.4	AVL09830731	SWITCH	1	
2	AVL390537	CLUTCH	1	
3	AVL824198	LEVER	1	
4	AVL494873	FLANGE	1	
4.1	AVL902648	ALAN SCREW	4	
4.2	AVL902325	SPRING WASHER	4	
4.3	AVL908481	SEAL	1	
5	AVL476039	REDUCER	1	
6	AVL492660	MANOMETRIC SWITCH	1	
7	AVL922313	REDUCER	2	
8	AVL908753	SCREWED NECK	1	
9	AVL901430	REDUCER	2	
10	AVL909785	SCREWED NECK	1	
11	AVL901401	REDUCER	1	
12	AVL901235	REDUCER	1	
13	AVL901248	REDUCER	1	
14	AVL901503	REDUCER	1	
15	AVL902753	ALAN SCREW	3	



4-0.7  
PTO PUMP

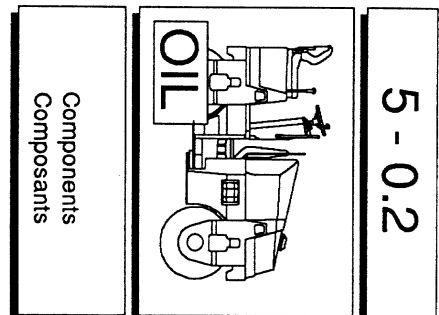
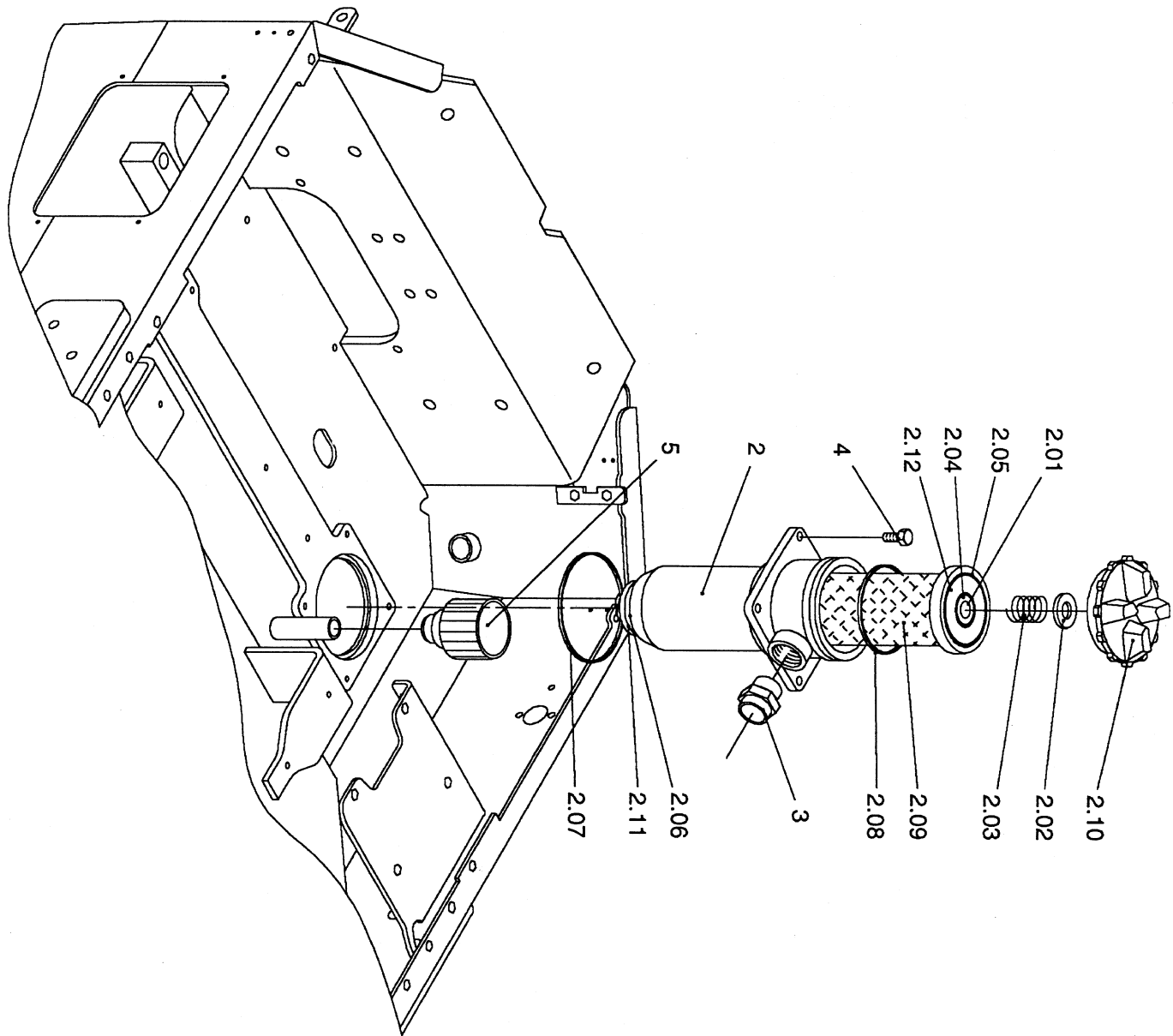
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL494808	GEAR PUMP	1	
2	AVL491354	G – CONNECTION	1	
2.1	AVL908882	ALAN SCREW	4	
2.2	AVL902323	SPRING WASHER	4	
2.3	AVL906670	SEAL	1	
3	AVL491442	G – CONNECTION COMPLETE	1	
3.1	AVL908882	ALAN SCREW	4	
3.2	AVL902323	SPRING WASHER	4	
3.3	AVL906670	SEAL	1	
4	AVL491443	G – CONNECTION	1	
4.1	AVL908882	ALAN SCREW	4	
4.2	AVL902323	SPRING WASHER	4	
4.3	AVL906672	SEAL	1	
5	AVL901210	REDUCER	1	
6	AVL901250	REDUCER	1	
7	AVL901236	REDUCER	1	
8	AVL902646	ALAN SCREW	2	





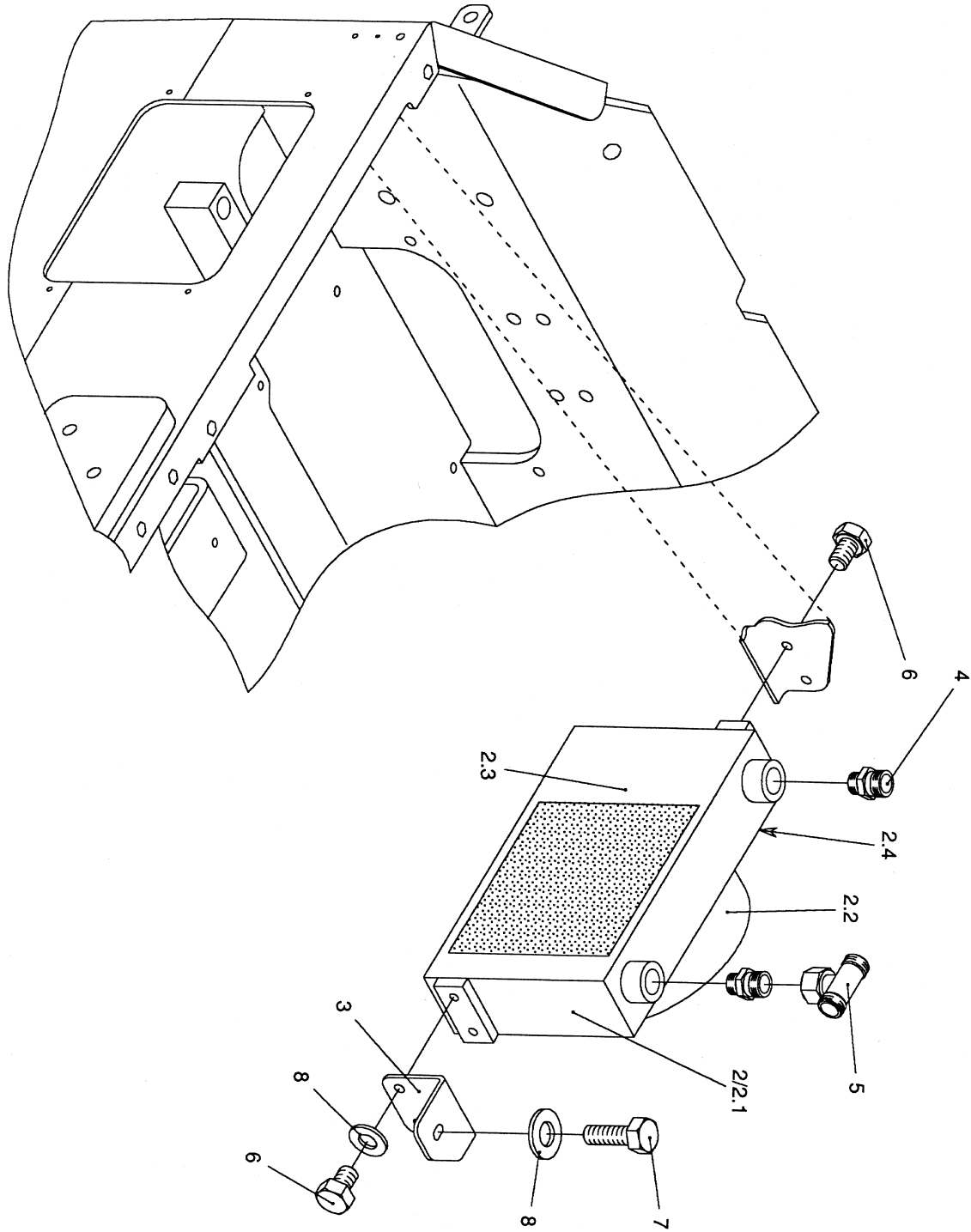
5-0.1  
COMPONENTS

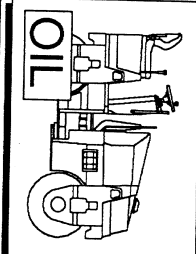
<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL495101	VIBRATION CONTROL VALVE	2	
2.1	AVL922829	MAGNET COIL	2	
2.2	AVL944413	VALVE	2	
2.3	AVL922822	CARTRIDGE FOR WAY-VALVE	2	
2.4	AVL922827	SEAL KIT	2	
2.5	AVL922828	SEAL KIT	2	
2.6	AVL923443	KNURLED NUT	2	
3	AVL901064	REDUCER	4	
4	AVL901250	REDUCER	2	
5	AVL901237	REDUCER	3	
6	AVL803524	RETURN-FLOW TUBE	3	
7	AVL908722	REDUCER	1	
8	AVL901458	REDUCER	1	
9	AVL901863	SCREW HEX. HEAD	4	



5-0.2  
COMPONENTS

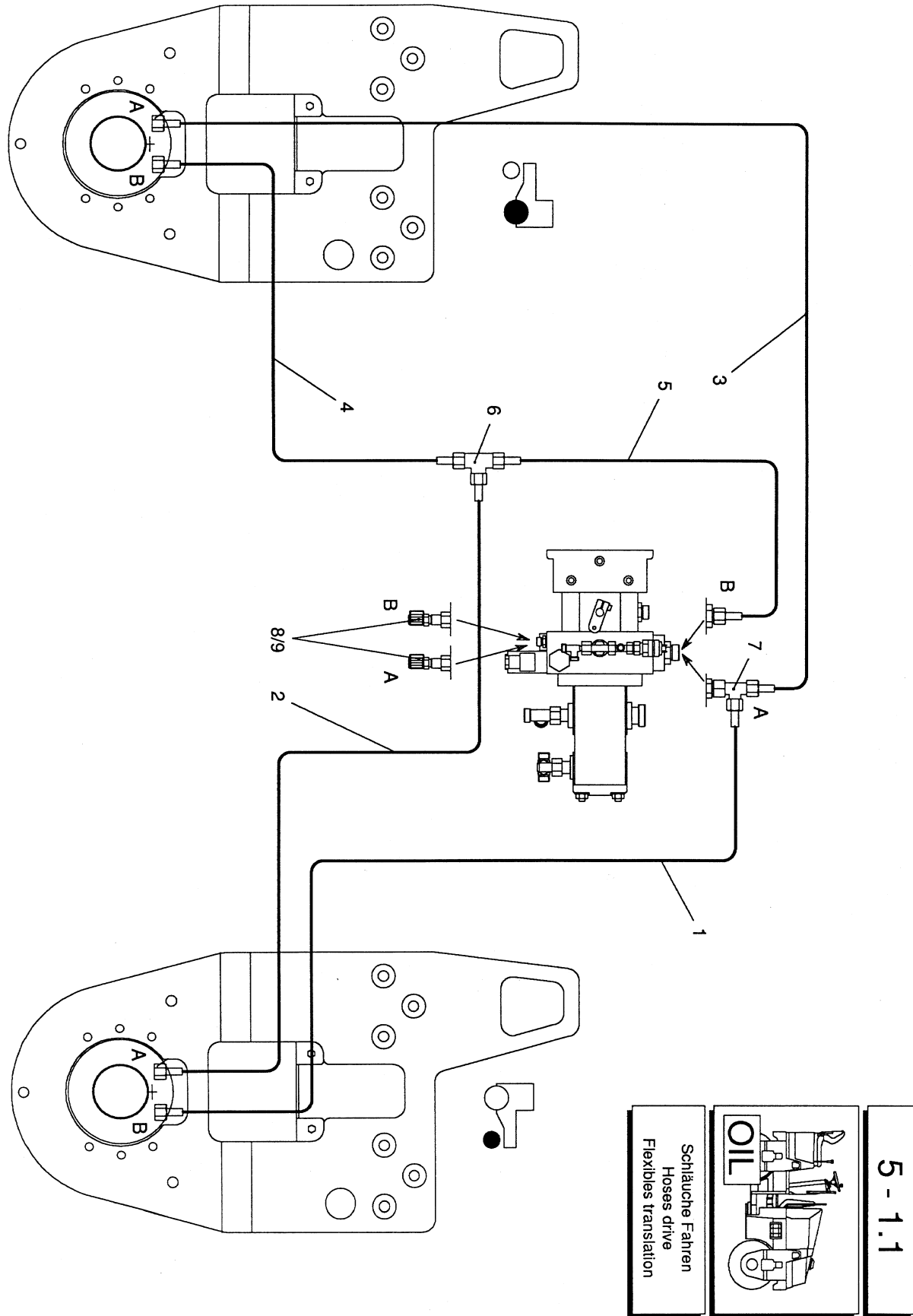
<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL491952	SUCTION FILTER COMPLETE	1	
2.01	AVL0020290	ROD	1	
2.02	AVL0040182	WASHER	1	
2.03	AVL0151901	THRUST SPRING	1	
2.04	AVL0420601	RUBBER FUNNEL	1	
2.05	AVL0425201	RUBBER FUNNEL	1	
2.06	AVL0427401	RUBBER FUNNEL	1	
2.07	AVL907498	SEAL	1	
2.08	AVL908097	SEAL	1	
2.09	AVL921198	FILTER CARTRIDGE	1	
2.10	AVL921769	COVER	1	
2.11	AVL921770	VALVE CONE O. FACE	1	
2.12	AVLES0841204	RING	1	
3	AVL901067	REDUCER	1	
4	AVL901773	SCREW HEX. HEAD	4	
5	AVL493912	VENTILATION FILTER	1	



5 - 0.3

Components Components

5-0.3  
COMPONENTS

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
2	AVL495091	OIL COOLER COMPLETE	1	
2.1	AVL00V44	OIL COOLER	1	
2.2	AVLOOSG1	VENTILATOR	2	
2.3	AVLMOOXY	HOUSING	1	
3	AVL820626	BRACKET	1	
4	AVL908753	SCREWED NECK	2	
5	AVL901237	REDUCER	1	
6	AVL901761	SCREW HEX. HEAD	4	
7	AVL901764	SCREW HEX. HEAD	1	
8	AVL921646	WASHER	3	

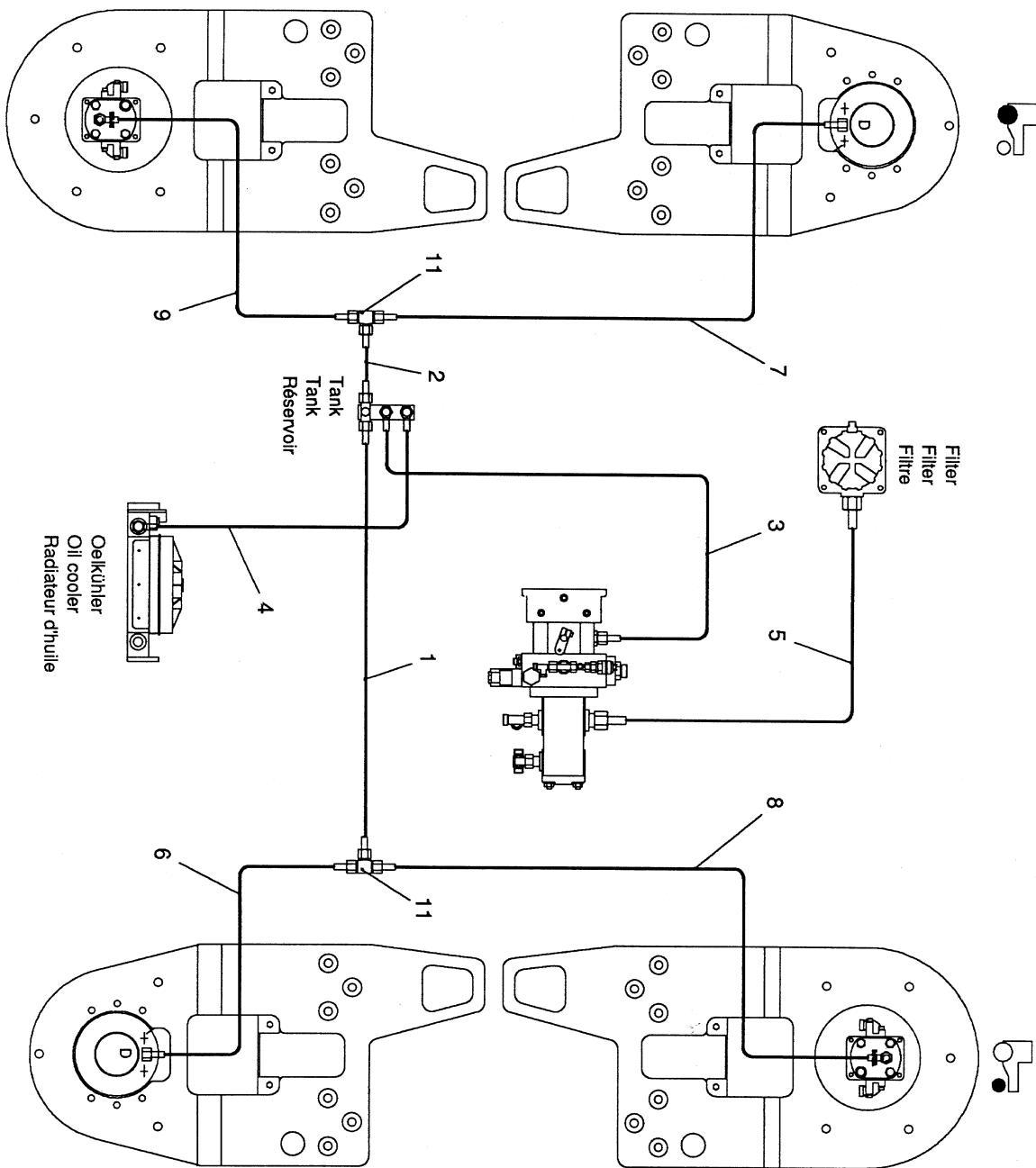


50-1.1  
FLOW DIVIDER

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL494862	FLOW DIVIDER VALVE	1	
2	AVL901745	REDUCER	1	
3	AVL922312	REDUCER	3	
4	AVL901250	REDUCER	1	
5	AVL908722	REDUCER	1	
6	AVL944157	HOSE	1	
10	AVL901865	SCREW HEX. HEAD	2	



# SUCTION + LEAK PIPE

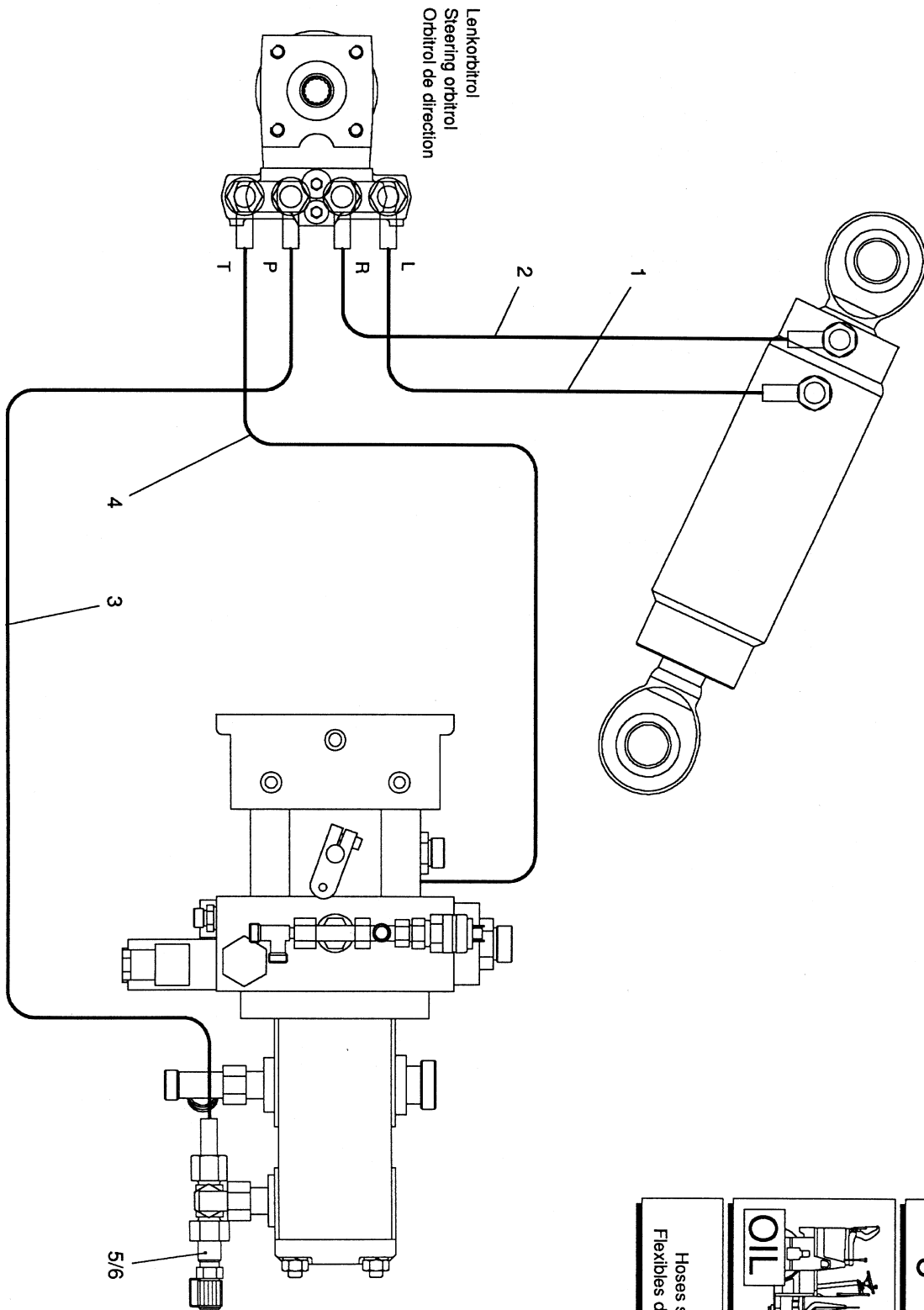


5 - 2.1		Suction- + Leak pipe Conduite d' asp.- + rel.
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5-2.1  
SUCTION + LEAK PIPE

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL944225	HOSE	1	
2	AVL922375	HOSE	1	
3	AVL944159	HOSE	1	
4	AVL944156	HOSE	1	
5	AVL944154	HOSE	1	
6	AVL944199	HOSE, T23	1	
6	AVL909230	HOSE, T26	1	
6	AVL909810	HOSE, T33	1	
7	AVL944234	HOSE, T23	1	
7	AVL944196	HOSE, T26	1	
7	AVL944216	HOSE, T33	1	
8	AVL944230	HOSE, T23	1	
8	AVL944204	HOSE, T26	1	
8	AVL909810	HOSE, T33	1	
9	AVL908939	HOSE, T23	1	
9	AVL922375	HOSE, T26	1	
9	AVL944219	HOSE, T33	1	
11	AVL901433	REDUCER	1	

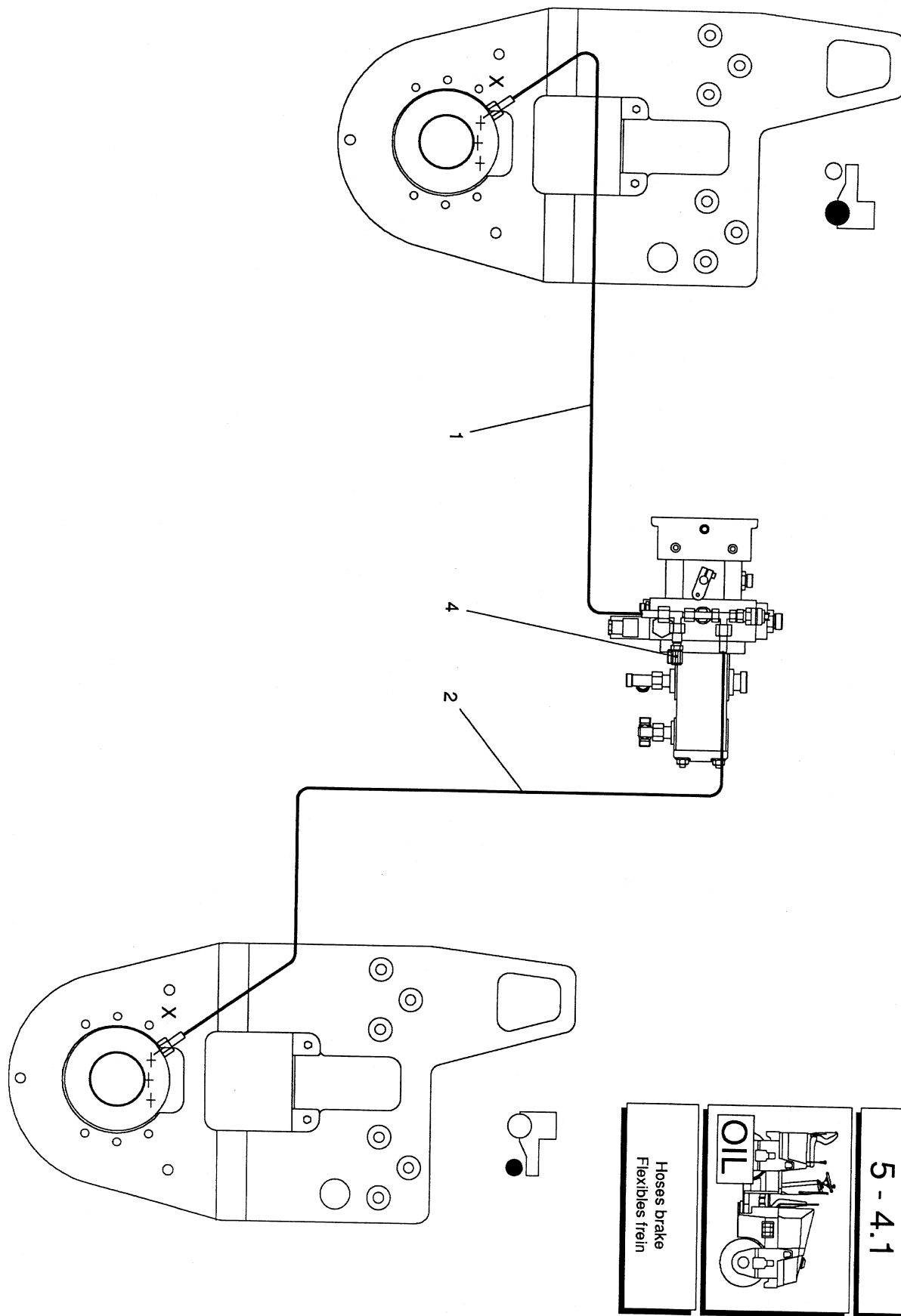
# HOSES STEERING



Hoses steering Flexibles de direction	<p>OIL</p>	5 - 3.1
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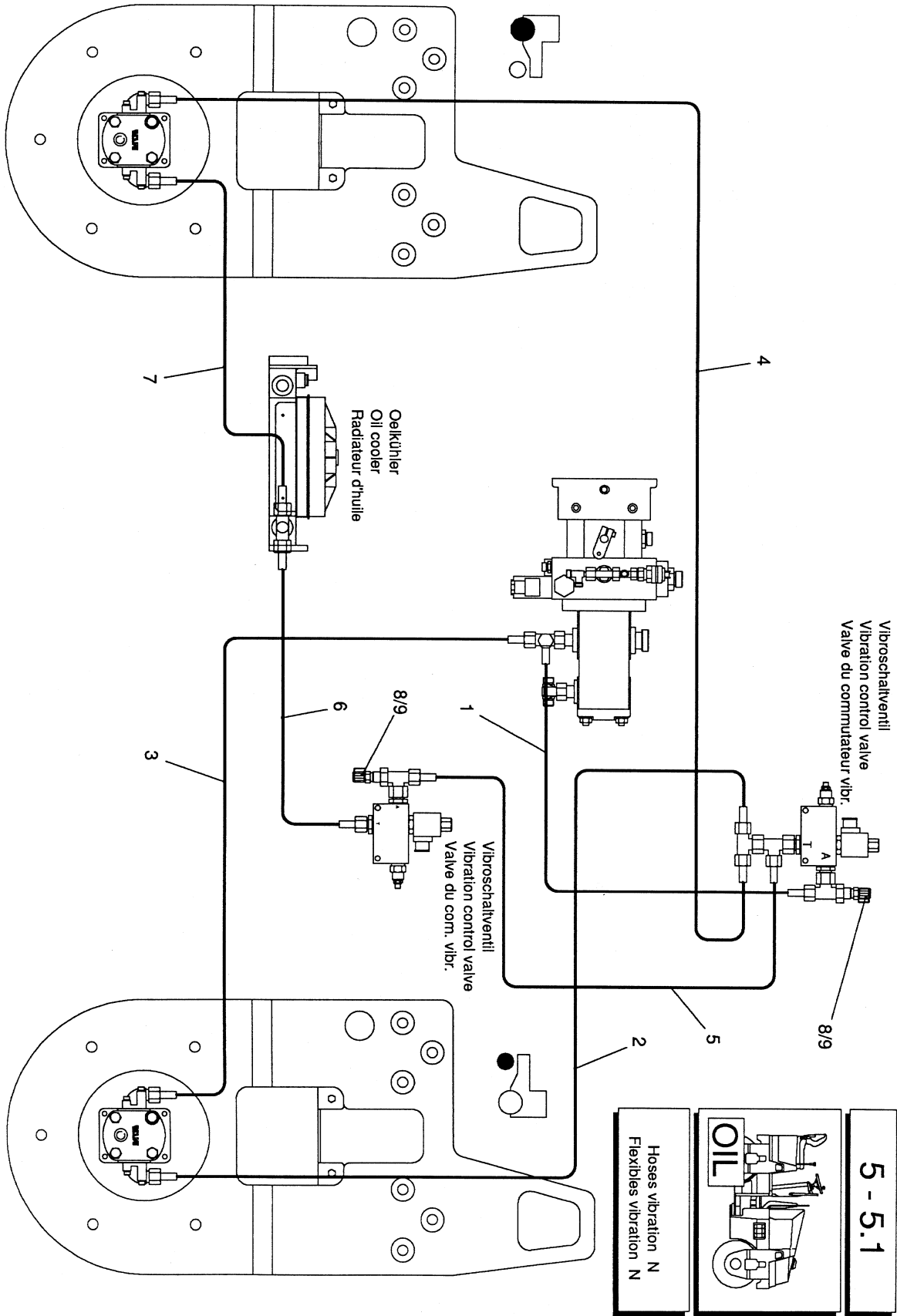
5-3.1  
HOSES STEERING

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL923847	HOSE	1	
2	AVL923848	HOSE	1	
3	AVL944158	HOSE	1	
4	AVL922819	HOSE	1	
5	AVL901275	PLUG	1	
6	AVL901325	COUPLING NUT	1	



5-4.1  
HOSES BRAKE

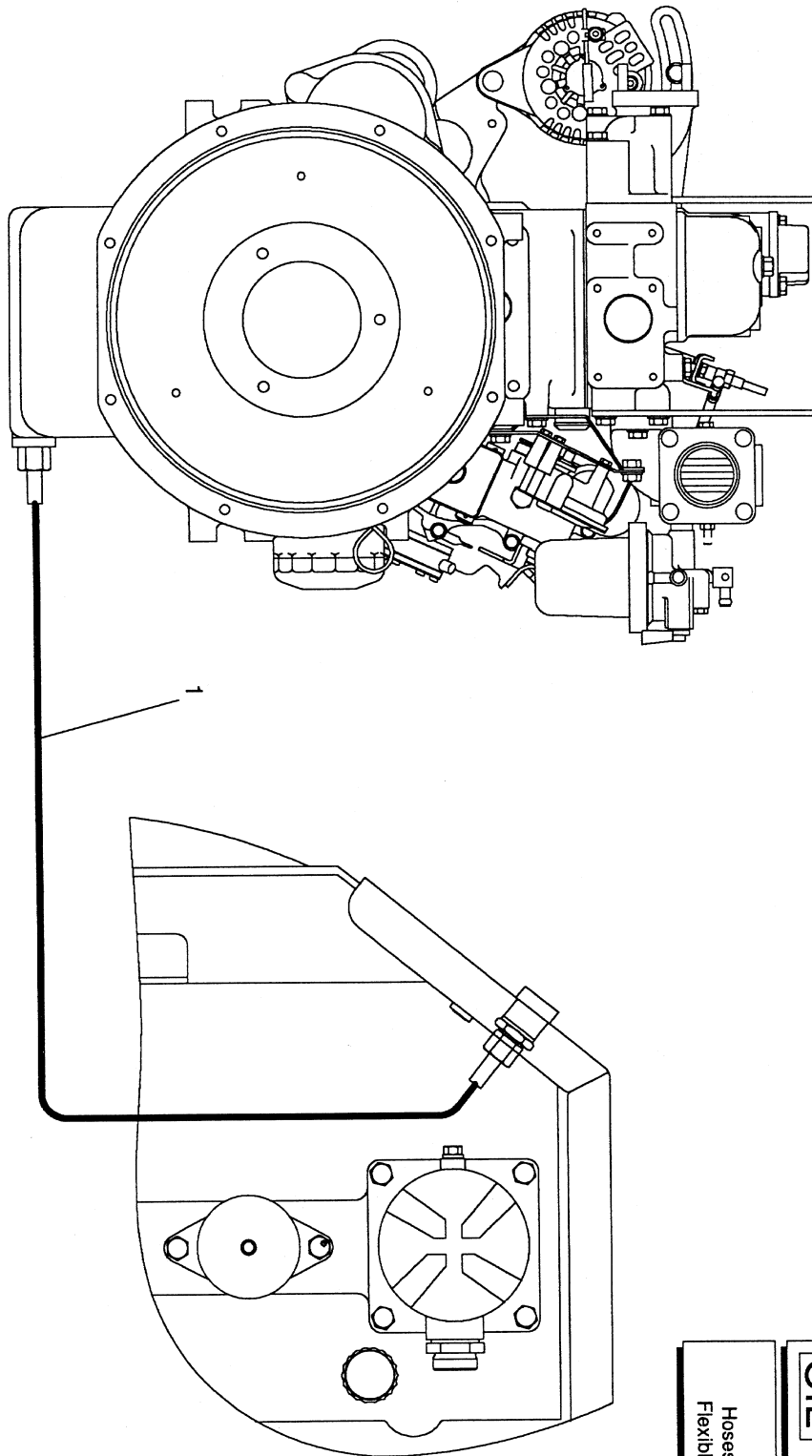
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL944233	HOSE, T23	1	
1	AVL944195	HOSE, T26	1	
1	AVL944245	HOSE, T33	1	
2	AVL944229	HOSE, T23	1	
2	AVL923518	HOSE, T26	1	
2	AVL944212	HOSE, T33	1	
4	AVL901273	PLUG	1	
5	AVL901429	COUPLING NUT	1	

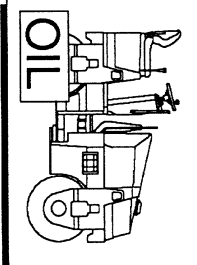


## 5-5.1 HOSES VIBRATION

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL944208	HOSE	1	
2	AVL944240	HOSE, T23	1	
2	AVL944206	HOSE, T26	1	
2	AVL944211	HOSE, T33	1	
3	AVL944239	HOSE, T23	1	
3	AVL944205	HOSE, T26	1	
3	AVL944210	HOSE, T33	1	
4	AVL944237	HOSE, T23	1	
4	AVL944202	HOSE, T26	1	
4	AVL944220	HOSE, T33	1	
5	AVL944153	HOSE	1	
6	AVL944155	HOSE	1	
7	AVL944238	HOSE, T23	1	
7	AVL944203	HOSE, T26	1	
7	AVL944221	HOSE, T33	1	
8	AVL901276	PLUG	2	
9	AVL901003	COUPLING NUT	2	

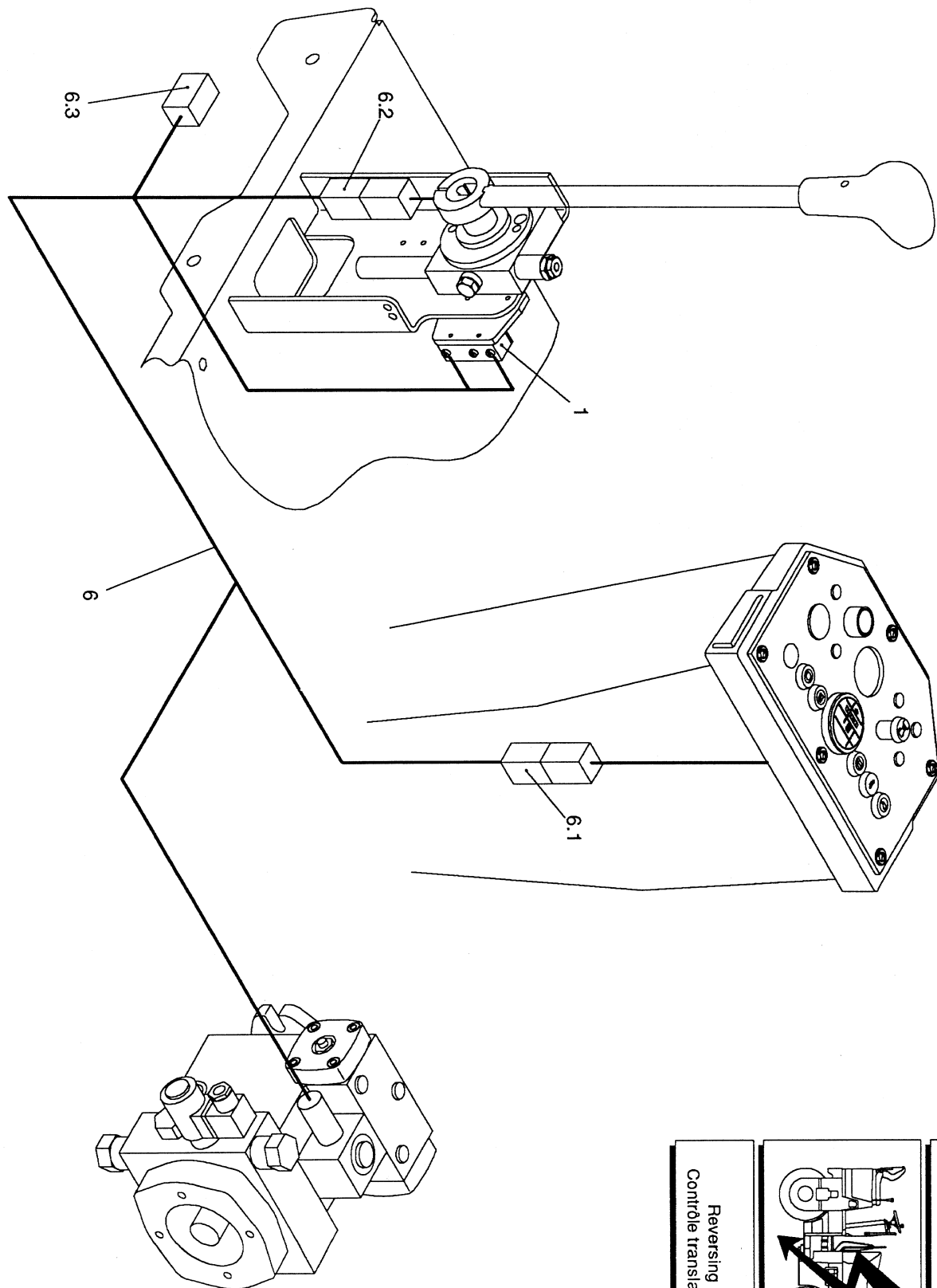


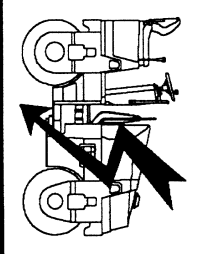


Hoses various Flexibles divers		5 - 6.1
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5-6.1  
HOSES VARIOUS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL922913	HOSE	1	



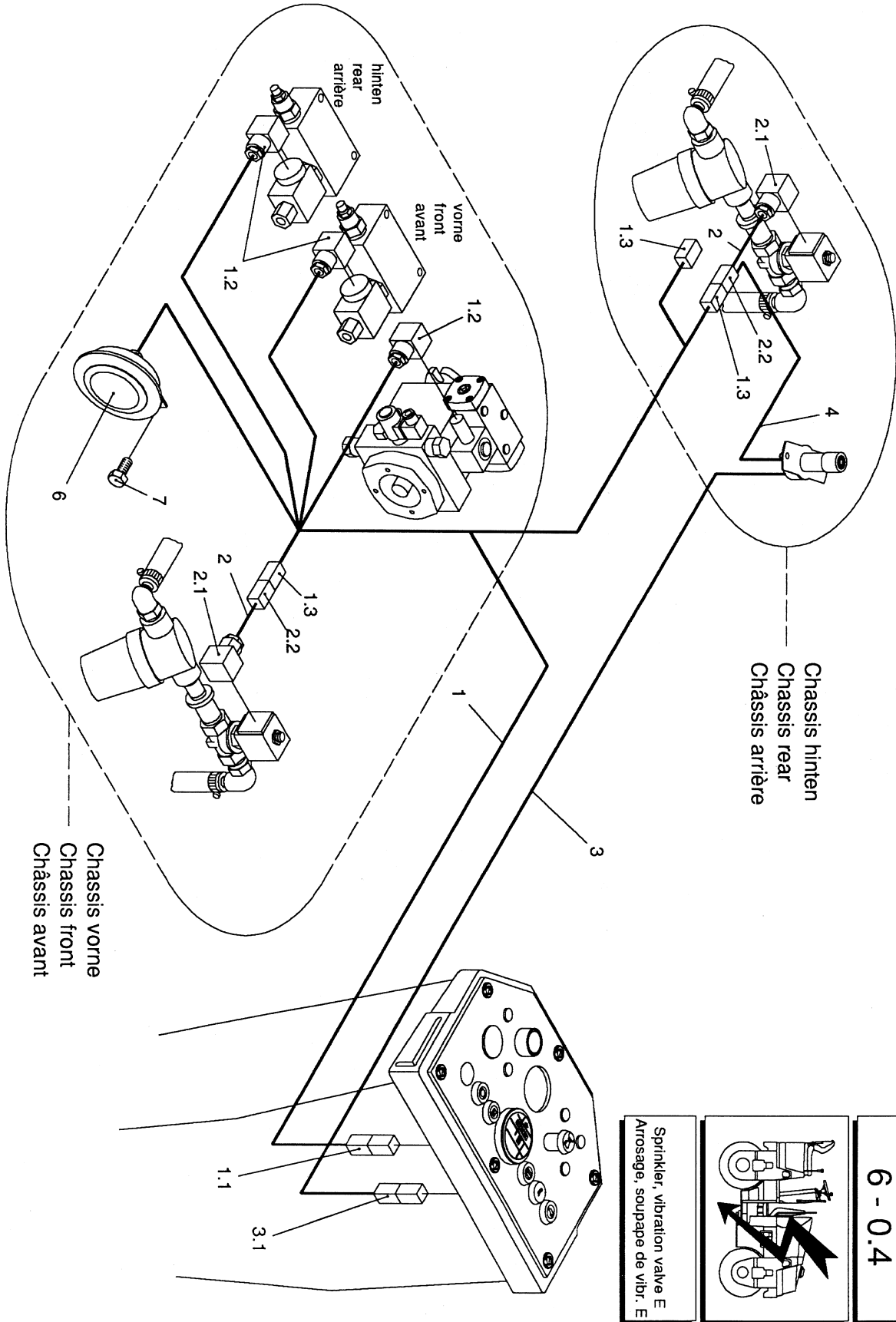
Reversing E Control translation E		6 - 0.2
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6-0.2

## REVERSING ELECTRICAL

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL491401	SWITCH	1	
4	AVL922643	SCREW HEX. HEAD	2	
6	AVL824991	WIRING HARNESS	1	
6.1	AVL912430	CONNECTOR HOUSING	1	
6.2	AVL912428	CONNECTOR HOUSING	1	
6.3	AVL912424	CONNECTOR HOUSING	1	

# SPRINKLER, VIBRATION VALVE ELECTRICAL



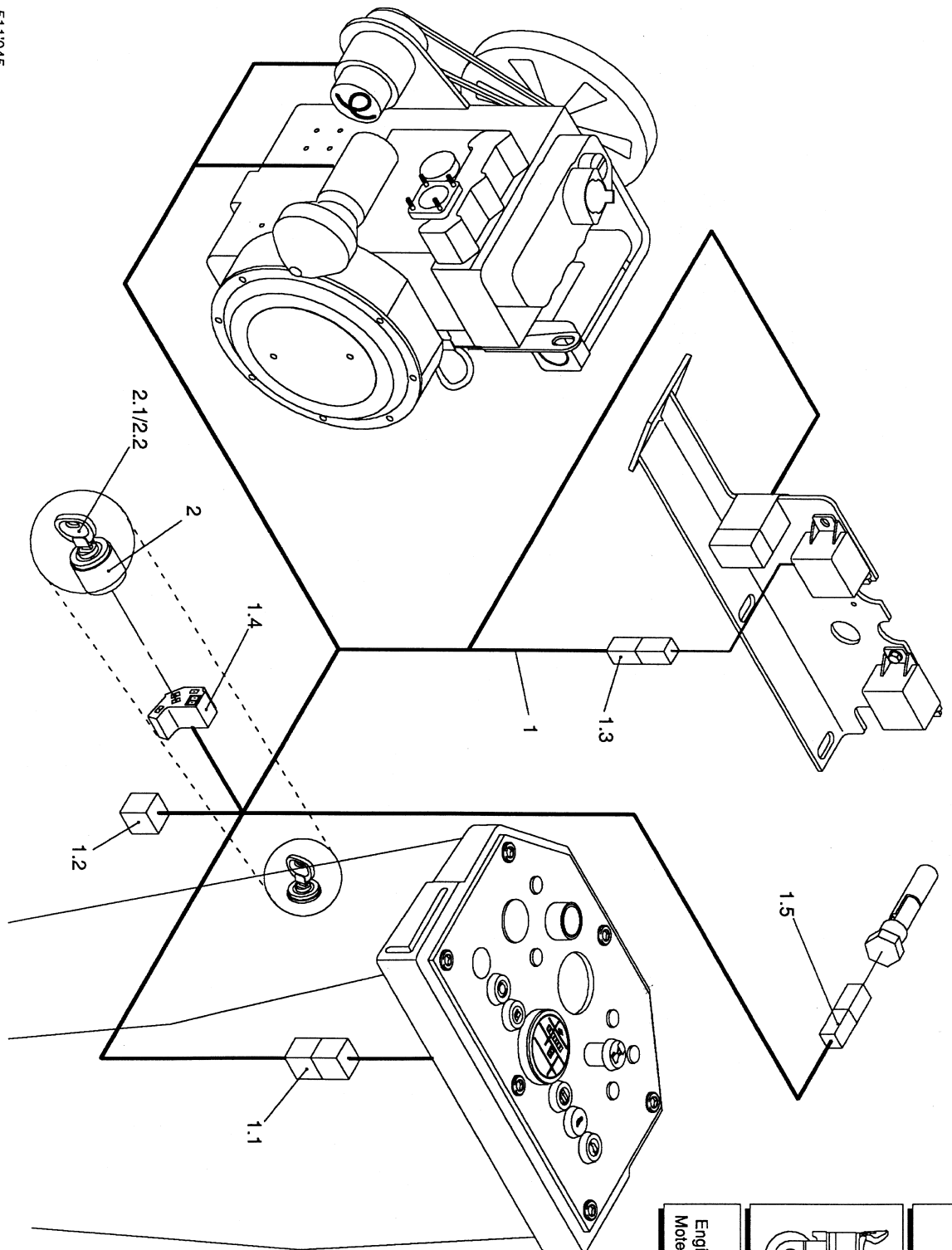
# SPRINKLER, VIBRATION VALVE ELECTRICAL

6-0.4

SPRINKLER, VIBRATION VALVE ELECTRICAL

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL366157	WIRING HARNESS	1	
1.1	AVL912431	CONNECTOR HOUSING	1	
1.2	AVL910769	CABLE BOX	2	
1.3	AVL912424	CONNECTOR HOUSING	4	
2	AVL803735	CONNECTION CABLE	1	
2.1	AVL910769	CABLE BOX	1	
2.2	AVL912428	CONNECTOR HOUSING	1	
3	AVL824930	CABLE	1	
3.1	AVL912424	CONNECTOR HOUSING	1	
4	AVL824931	CABLE	1	
6	AVL491917	HORN	1	
7	AVL901764	SCREW HEX. HEAD	1	

511045



<p>Engine, ignition switch E Moteur, contacteur à clé E</p>		<p>6 - 1.2</p>
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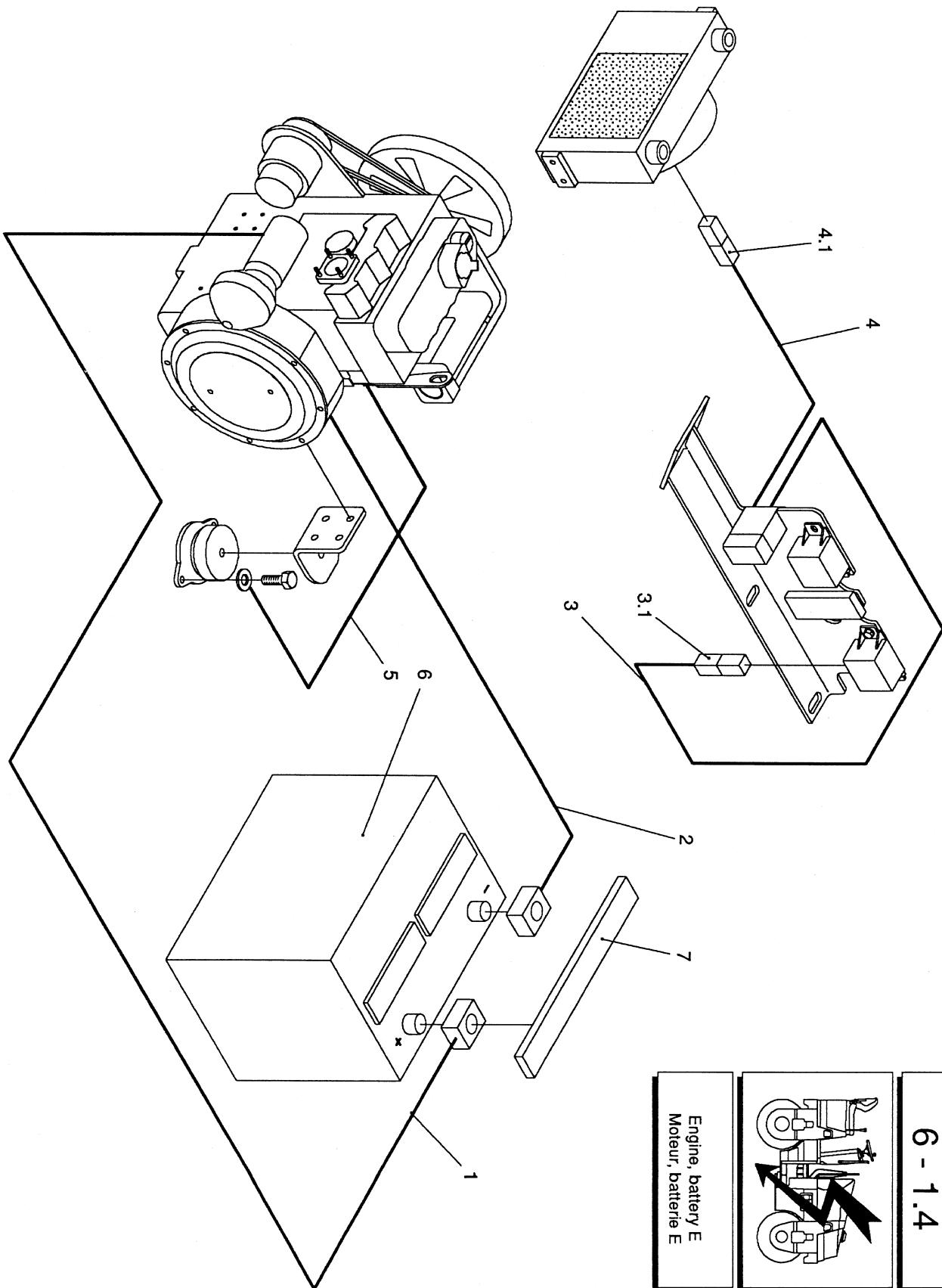
# ENGINE, IGNITION SWITCH ELECTRICAL

6-1.2

ENGINE, IGNITION SWITCH ELECTRICAL

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL366156	WIRING HARNESS	1	
1.1	AVL912427	CONNECTOR HOUSING	1	
1.2	AVL912426	CONNECTOR HOUSING	1	
1.3	AVL913585	CONNECTOR	1	
1.4	AVL491792	CONNECTOR	1	
1.5	AVL912424	CONNECTOR HOUSING	1	
2	AVL494823	IGNITION SWITCH COMPLETE	1	
2.1	AVL14607	IGNITION KEY	1	
2.2	AVL903498	KEY RING	1	



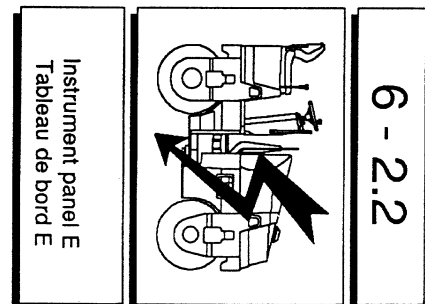
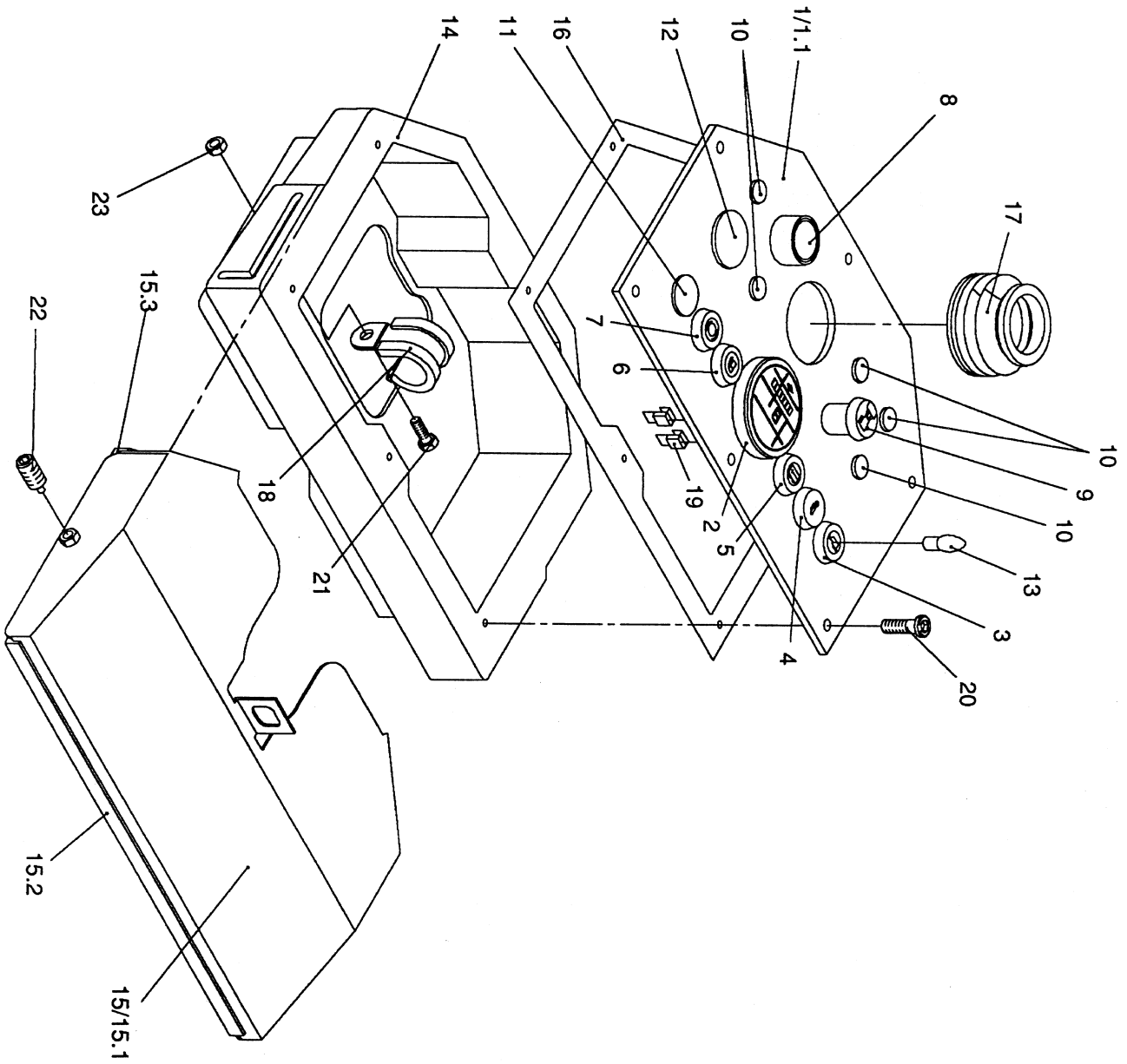


Engine, battery E Moteur, batterie E		6-1.4
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6-1.4  
BATTERY

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL820125	BATTERY CABLE POSITION	1	
2	AVL922932	GROUND STRAP	1	
3	AVL824415	WIRING HARNESS	1	
3.1	AVL922322	CONNECTOR	1	
4	AVL824593	WIRING HARNESS	1	
4.1	AVL912424	CONNECTOR HOUSING	1	
5	AVL479661	CONNECTION CABLE	1	
6	AVL920000	BATTERY	1	
7	AVL495103	BATTERY COVER	1	

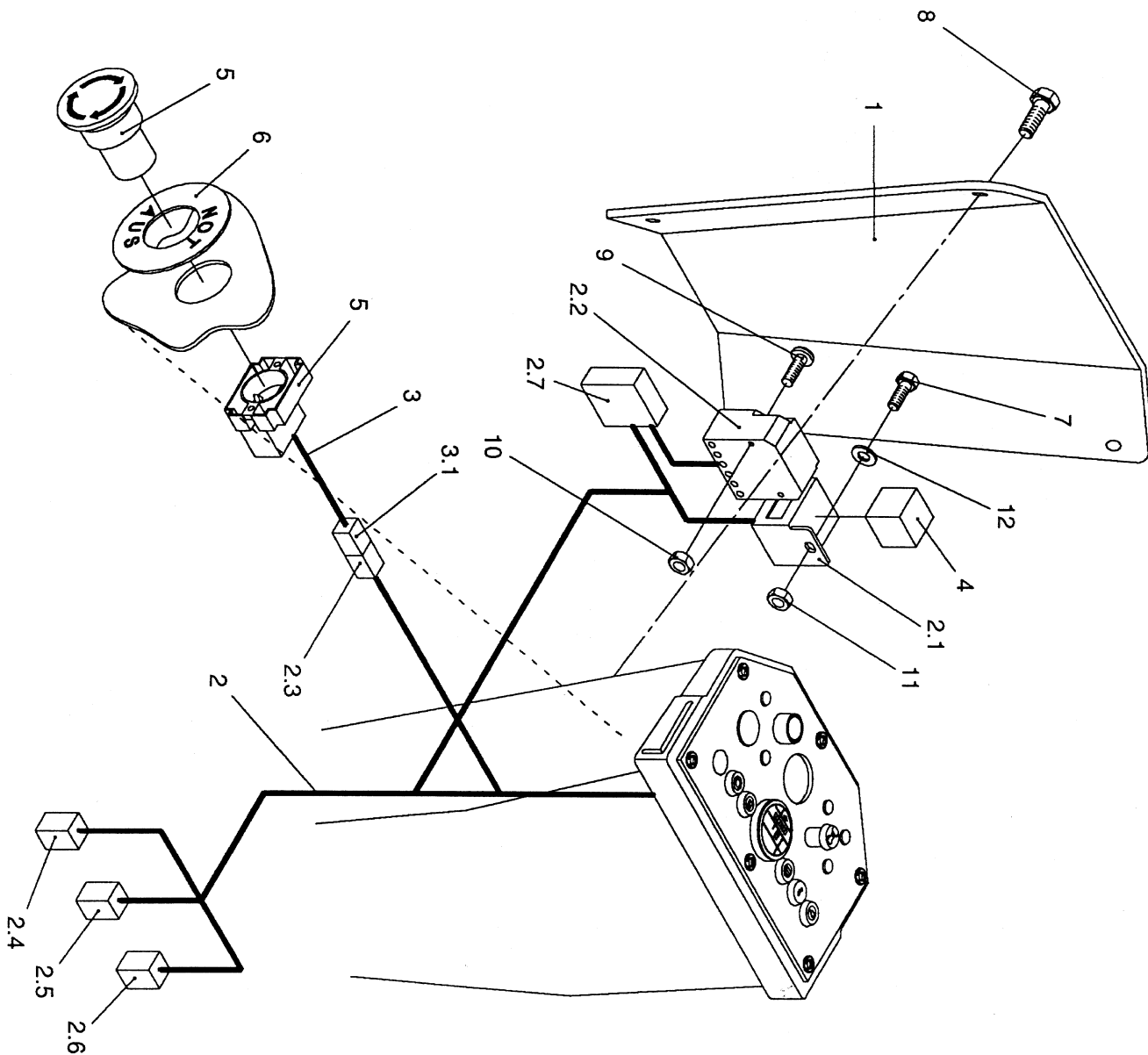
# INSTRUMENT PANEL

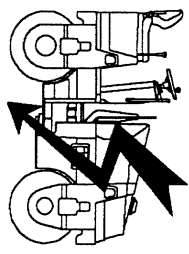


6-2.2  
INSTRUMENT PANEL

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL366176	INSTRUMENT PANEL COMPLETE	1	
1.1	AVL824996	CONTROL PANEL	1	
2	AVL495050	HOUR METER	1	
3	AVL491788	WARNING LIGHT - OIL PRESSURE	1	
4	AVL491787	WARNING LIGHT - TEMPERATURE	1	
5	AVL491790	WARNING LIGHT - BATTERY	1	
6	AVL492249	WARNING LIGHT - FUEL	1	
7	AVL491785	WARNING LIGHT - BRAKE	1	
8	AVL491402	SWITCH	1	
9	AVL491783	SPRINKLER SWITCH	1	
10	AVL912615	CUP PLUG	5	
11	AVL912616	COVER	1	
12	AVL913515	CUP PLUG	1	
13	AVL912552	BULB	5	
14	AVL365112	INSTRUMENT BOX	1	
15	AVL824463	SECURITY COVER COMPLETE	1	
15.1	AVL365735	SECURITY COVER	1	
15.2	AVL923691	U - PROFILE	1	
15.3	AVL922566	U - PROFILE	2	
16	AVL820450	GASKET	1	
17	AVL820116	BELLOW	1	
18	AVL901418	HOSE CLAMP	1	
19	AVL923872	WIRE TERMINAL	2	
20	AVL922616	ALAN SCREW	6	
21	AVL901756	SCREW HEX. HEAD	1	
22	AVL903206	HEXAGON ALAN PIN	2	
23	AVL902123	NUT HEX.	1	

# INSTRUMENT PANEL ELECTRICAL



6 - 2.3		Instrument panel E Tableau de bord E
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# INSTRUMENT PANEL ELECTRICAL

6-2.3

## INSTRUMENT PANEL ELECTRICAL

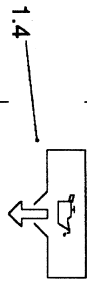
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL820650	COVER	1	
2	AVL236902	WIRING HARNESS	1	
2.1	AVL491804	SOCKET PLUG	1	
2.2	AVLE00072	RELAY	1	
2.3	AVL912424	CONNECTOR HOUSING	1	
2.4	AVL912426	CONNECTOR HOUSING	1	
2.5	AVL912431	CONNECTOR HOUSING	1	
2.6	AVL912427	CONNECTOR HOUSING	1	
2.7	AVL495092	DC ADAPTER	1	
3	AVL803491	CONNECTION CABLE	1	
3.1	AVL912428	CONNECTOR HOUSING	1	
4	AVL492344	RELAY	1	
5	AVL915590	BUTTON EMERGENCY STOP	1	
6	AVL911366	EMERGENCY STOP	1	
7	AVL901750	SCREW HEX. HEAD	1	
8	AVL901757	SCREW HEX. HEAD	4	
9	AVL902783	CHEESE HEAD SCREW	2	
10	AVL902120	NUT HEX.	2	
11	AVL902122	NUT HEX.	1	
12	AVL902261	WASHER	1	

3.1  
**RAMM MAX**

2  
**T23**



2  
**T26**



2  
**T33**



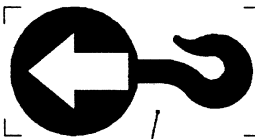
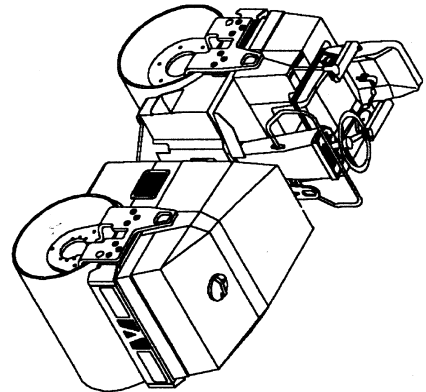
473754



1.10

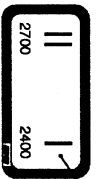
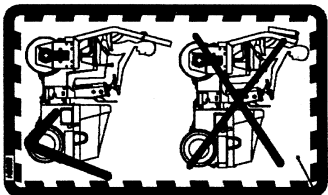


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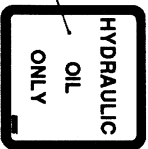


1.5

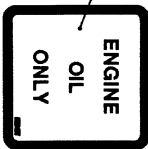
3.2



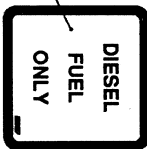
3.7



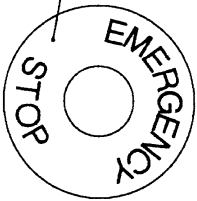
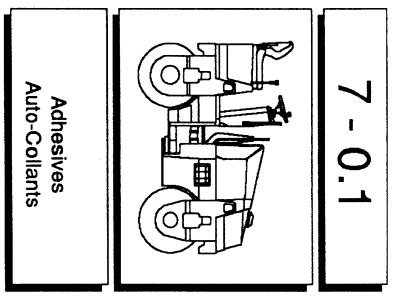
3.3



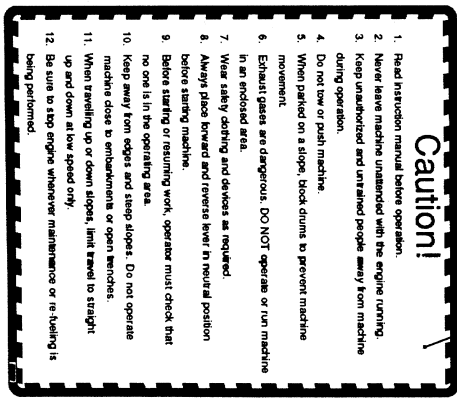
3.4



3.5



3.6



**Caution!**

1. Read instruction manual before operation.
2. Never leave machine unattended with the engine running.
3. Keep unauthorized and untrained people away from machine during operation.
4. Do not tow or push machine.
5. When parked on a slope, block drums to prevent machine movement.
6. Exhaust gases are dangerous. DO NOT operate or run machine in an enclosed area.
7. Wear safety clothing and devices as required.
8. Always place forward and reverse lever in neutral position before starting machine.
9. Before starting or resuming work, operator must check that no one is in the operating area.
10. Keep away from edges and steep slopes. Do not operate machine close to embankments or open trenches.
11. When travelling up or down slopes, limit travel to straight up and down at low speed only.
12. Be sure to stop engine whenever maintenance or re-tying is being performed.

1.11

**ACHTUNG ATTENTION**

NOT-AUS (Feststellbremse) nur bei abgestandener Maschine oder im Haltebetrieb!

Feststellbremse schließt automatisch beim Abstellen der Maschine beim Start, Rinschlebung und Lastlegen wenn die Betriebsbremse nicht betätigt ist.

The parking brake closes automatically when the engine is shut down.

When you start the machine, apply include the other brake when the brake control light is off.

Neudieser: Park of dropage, l'arrêt d'immobilisation qui lorsque la machine est mise en marche, se ferme automatiquement lorsque l'on actionne la frein d'immobilisation.

La frein d'immobilisation se verrouille automatiquement en coupant le moteur.

Lors de la mise en marche, l'adhésion à l'arrêt de l'immobilisation qui lorsque la lampe témoin est éteinte.

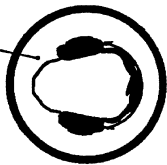
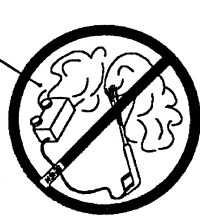
1.12

**ACHTUNG ATTENTION**

Nie mit dem Messerschalt in elektrischer Nähe arbeiten! Batterie spannen.

Never equipt directly electric or electronic components with a wrench!

Né jamais arrover les éléments électriques ou les câbles avec un cli-clou.



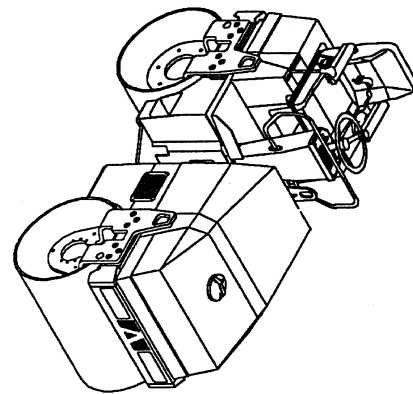
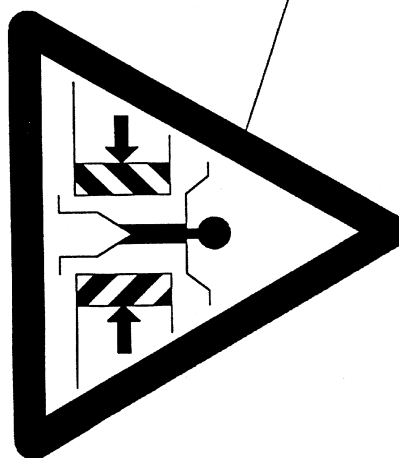
1.15

**ACHTUNG ATTENTION**

Bei Schweißarbeiten an der Maschine muss die Batterie abgetrennt werden. Die elektronische Steuerung kann sonst beeinträchtigt werden.

Déconnectez la batterie avant de procéder à des travaux de soudure à la machine. Le cas contraire pourrait nuire au réglage sur la commande électronique.

While welding work is carried out on the machine, the battery must be disconnected. Otherwise, the electronic control system could be damaged.



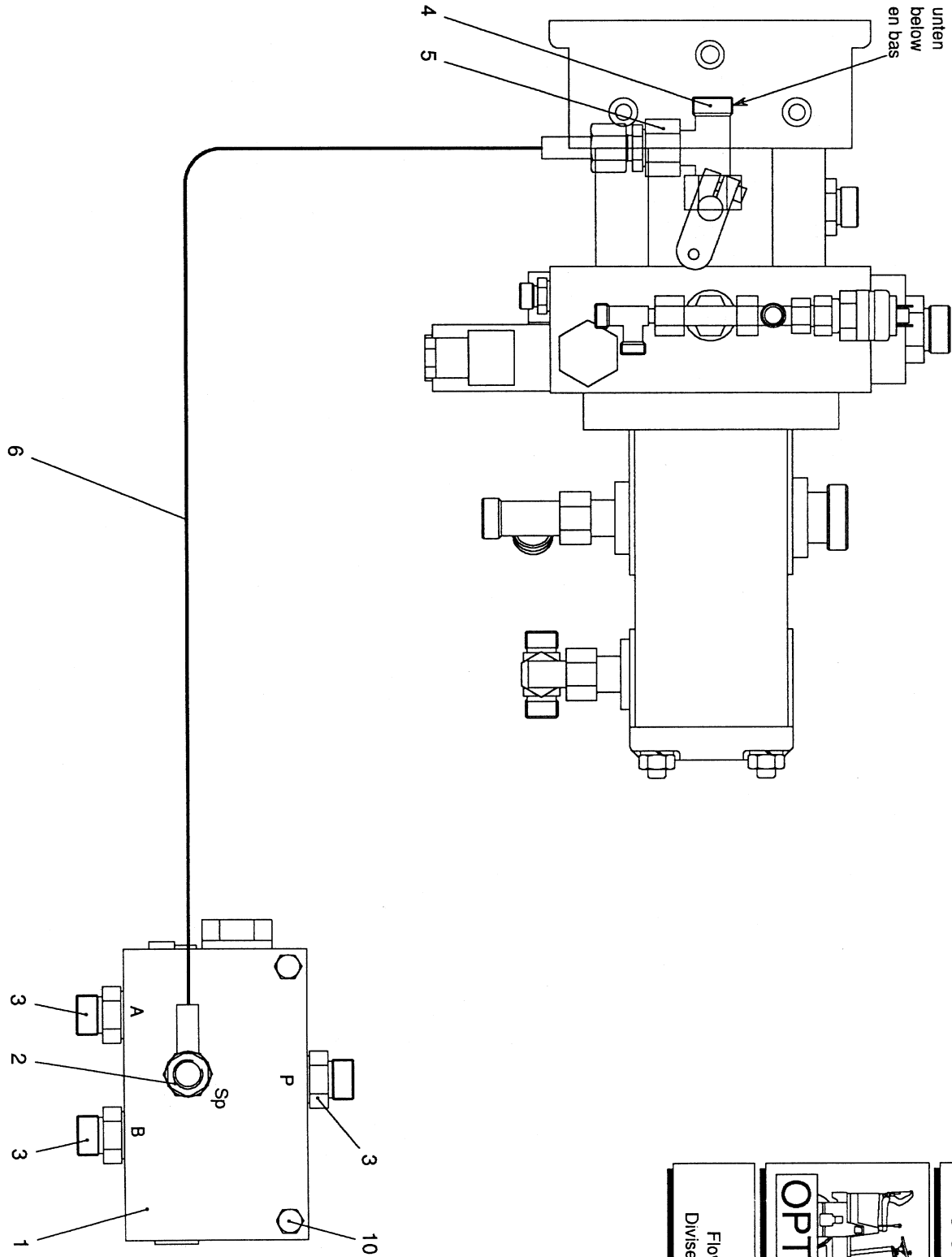
Adhesives  
Auto-Collants



7-0.1  
DECALS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL365906	DECAL KIT .....	1	..... INCLS. ALL ITEMS W/*
1.03*	AVL473755	DECAL	1	
1.04*	AVL473756	DECAL	1	
1.05*	AVL410988	DECAL	4	
1.06*	AVL473754	DECAL	2	
1.07*	AVL410465	DECAL	1	
1.08*	AVL820132	DECAL	1	
1.09*	AVL478679	DECAL	1	
1.10*	AVL820498	DECAL	1	
1.11*	AVL824512	DECAL	1	
1.12*	AVL824515	DECAL	1	
1.13*	AVL824514	DECAL	2	
1.14*	AVL413020	DECAL	1	
1.15*	AVL820782	DECAL	1	
1.16*	AVL412967	DECAL	1	
1.17*	AVL907918	WARNING MARK	2	
1.18*	AVL907919	WARNING MARK	2	
2	AVL828054	DECAL, T23	2	
2	AVL828055	DECAL, T26	2	
2	AVL828057	DECAL, T33	2	
3.1	AVL495102	DECAL	4	
3.2	AVL828104	DECAL	1	
3.3	AVL828105	DECAL	1	
3.4	AVL828106	DECAL	1	
3.5	AVL828107	DECAL	1	
3.6	AVL828108	DECAL	1	
3.7*	AVL828109	DECAL	1	
3.8	AVL944445	PLATE	1	

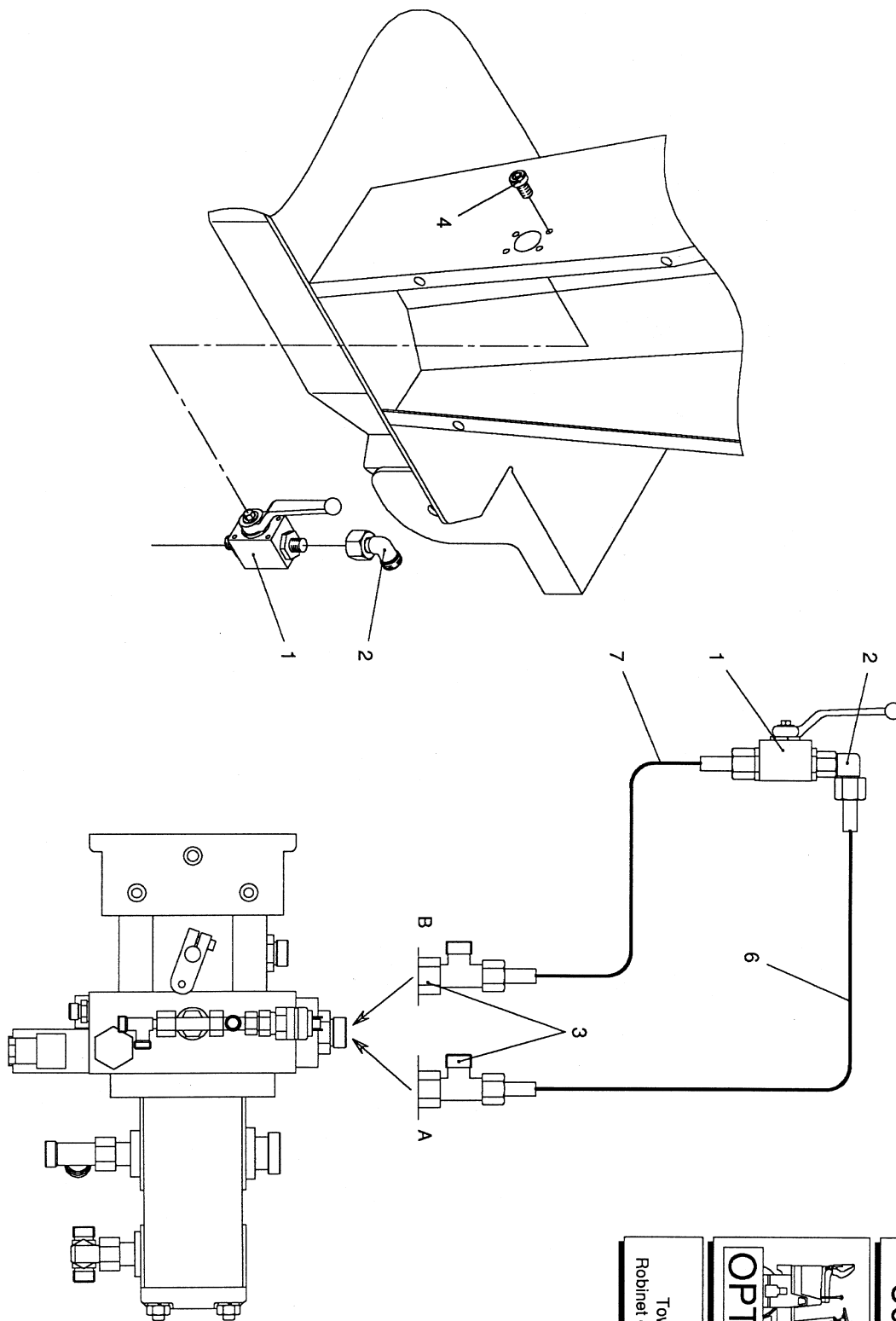


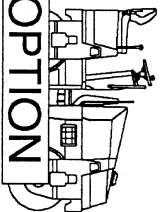


Flow divider Diviseur de débit	 <b>OPTION</b>	<b>50 - 1.1</b>
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50-1.1  
FLOW DIVIDER

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL494862	FLOW DIVIDER VALVE	1	
2	AVL901745	REDUCER	1	
3	AVL922312	REDUCER	3	
4	AVL901250	REDUCER	1	
5	AVL908722	REDUCER	1	
6	AVL944157	HOSE	1	
10	AVL901865	SCREW HEX. HEAD	2	

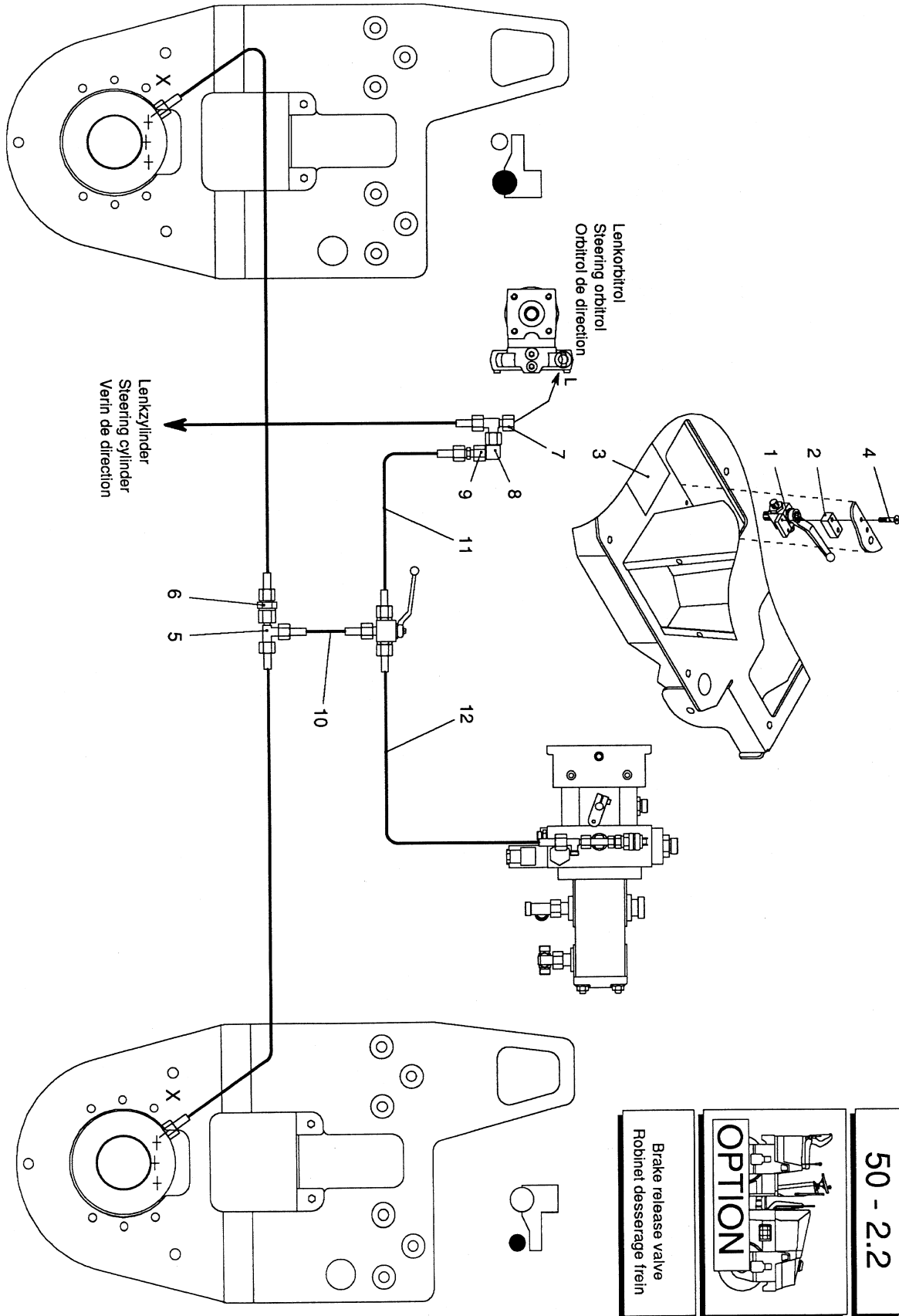


<p>Towing valve Robinet de remorquage</p>	<p><b>OPTION</b></p> 	<p>50 - 2.1</p>
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50-2.1  
TOWING VALVE

<b><u>NO</u></b>	<b><u>PART NO</u></b>	<b><u>PART NAME</u></b>	<b><u>QTY.</u></b>	<b><u>REMARKS</u></b>
1	AVL494978	COCK	1	
2	AVL901630	REDUCER	1	
3	AVL923561	REDUCER	2	
4	AVL902628	ALAN SCREW	4	
6	AVL923906	HOSE	1	
7	AVL923907	HOSE	1	

# BRAKE RELEASE VALVE



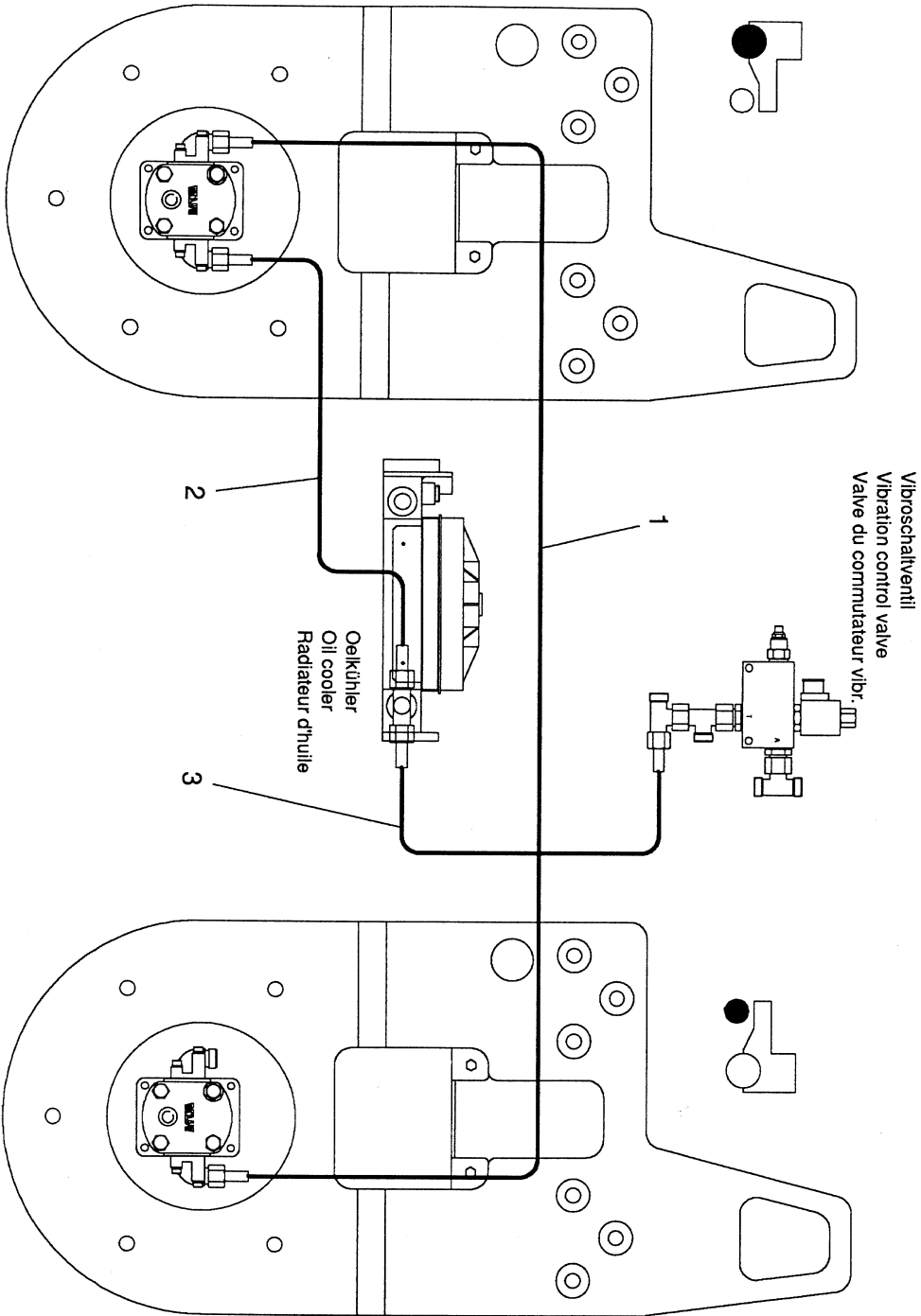
# BRAKE RELEASE VALVE

50-2.2

BRAKE RELEASE VALVE

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL494111	COCK	1	
2	AVL824291	DISTANCE PLATE	1	
3	AVL824232	DECAL	1	
4	AVL923254	COUNTERSUNK HEAD SCREW (1 6 KT)	2	
5	AVL901248	REDUCER	1	
6	AVL922233	REDUCER	1	
7	AVL901436	REDUCER	1	
8	AVL901373	REDUCER	1	
9	AVL906044	REDUCER	1	
10	AVL923893	HOSE	1	
11	AVL923894	HOSE	1	
12	AVL923895	HOSE	1	





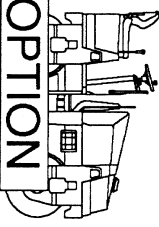
Vibroschaltventil  
 Vibration control valve  
 Valve du commutateur vibr.

Ölkuhler  
 Oil cooler  
 Radiateur d'huile

2

1

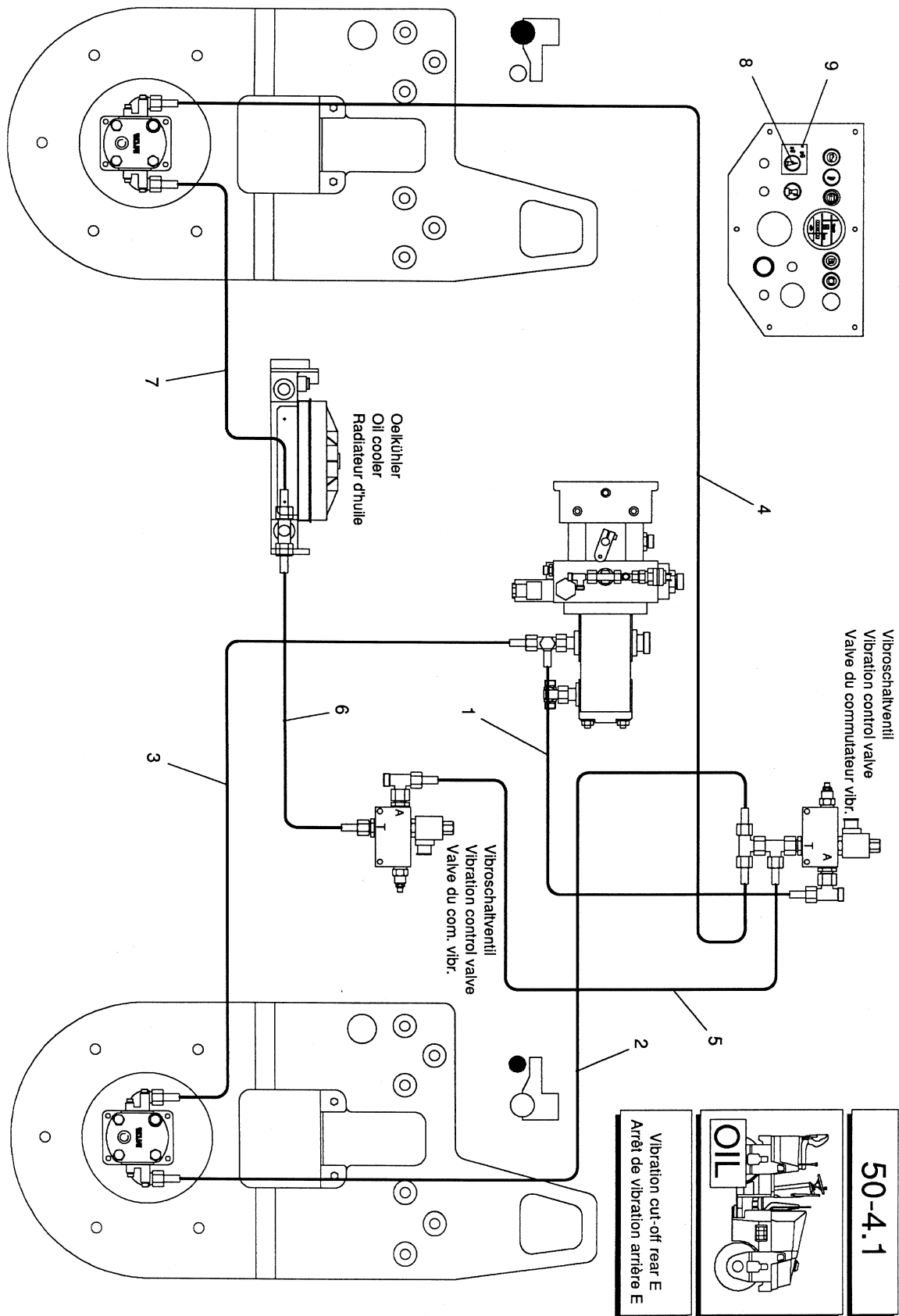
3

50 - 3.1	 <p><b>OPTION</b></p>	<p>Vibration rear E                  Vibration arrière E</p>
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50-3.1  
VIBRATION REAR

<b><u>NO</u></b>	<b><u>PART NO</u></b>	<b><u>PART NAME</u></b>	<b><u>QTY.</u></b>	<b><u>REMARKS</u></b>
1	AVL944241	HOSE, T23	1	
1	AVL944207	HOSE, T26	1	
1	AVL944223	HOSE, T33	1	
2	AVL944238	HOSE, T23	1	
2	AVL944203	HOSE, T26	1	
2	AVL944221	HOSE, T33	1	
3	AVL944160	HOSE	1	

# VIBRATION CUT-OFF REAR

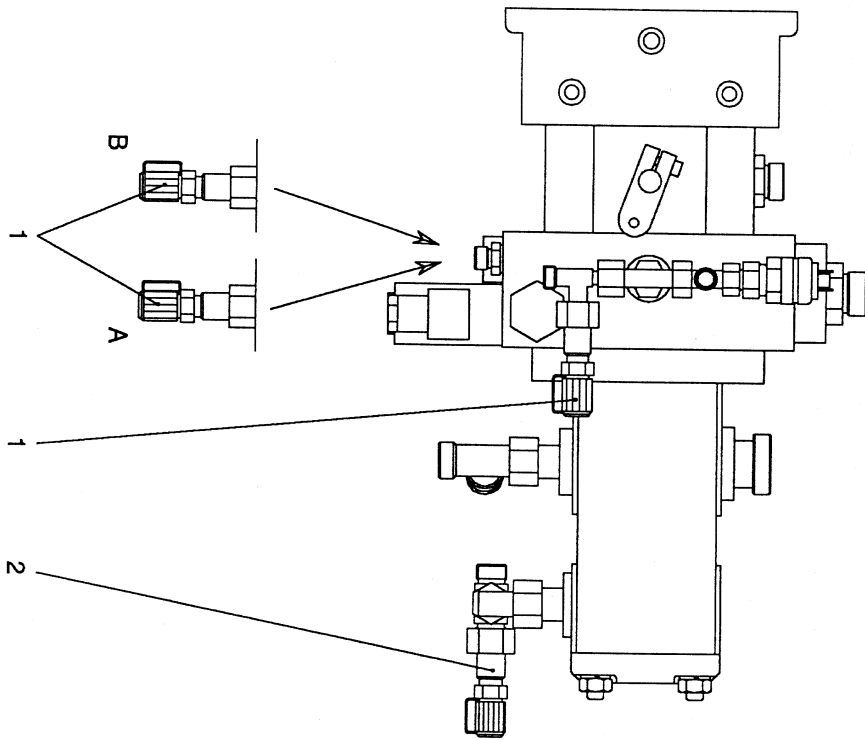


50-4.1

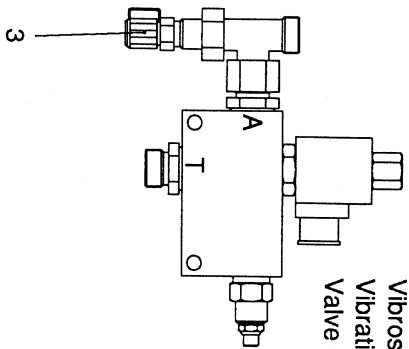
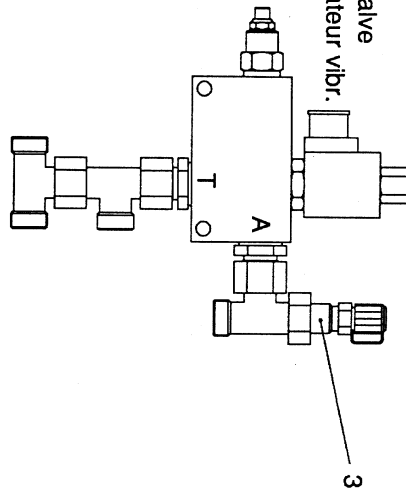
## VIBRATION CUT-OFF REAR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL944208	HOSE	1	
2	AVL944240	HOSE, T23	1	
2	AVL944206	HOSE, T26	1	
2	AVL944211	HOSE, T33	1	
3	AVL944239	HOSE, T23	1	
3	AVL944205	HOSE, T26	1	
3	AVL944210	HOSE, T33	1	
4	AVL944237	HOSE, T23	1	
4	AVL944202	HOSE, T26	1	
4	AVL944220	HOSE, T33	1	
5	AVL944153	HOSE	1	
6	AVL944155	HOSE	1	
7	AVL944238	HOSE, T23	1	
7	AVL944203	HOSE, T26	1	
7	AVL944221	HOSE, T33	1	
8	AVL492975	TURN SWITCH	1	
9	AVL803504	SHIELD "SPRINKLER/VIBRATION"	1	

# PRESSURE TESTING CONNECTING

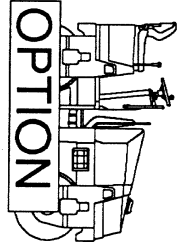


Vibroschaltventil  
Vibration control valve  
Valve du commutateur vibr.



Vibroschaltventil  
Vibration control valve  
Valve du commutateur vibr.

50 - 5.1



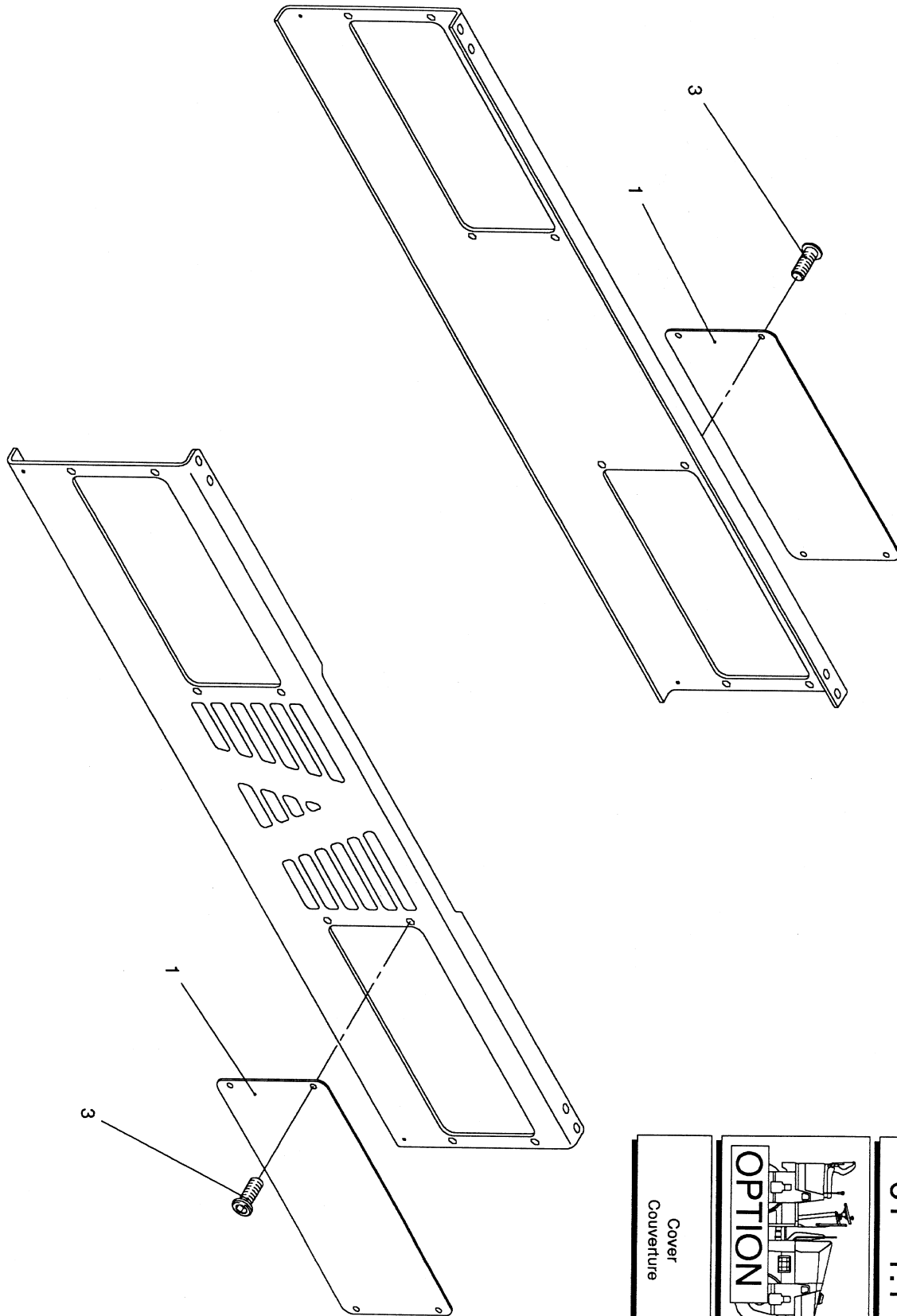
Press. testing connectors E  
Prises de pression E

# PRESSURE TESTING CONNECTING

50-5.1

## PRESSURE TESTING CONNECTORS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL921283	METERING CONNECTOR	3	
2	AVL921284	METERING CONNECTOR	1	
3	AVL921033	METERING CONNECTOR	2	



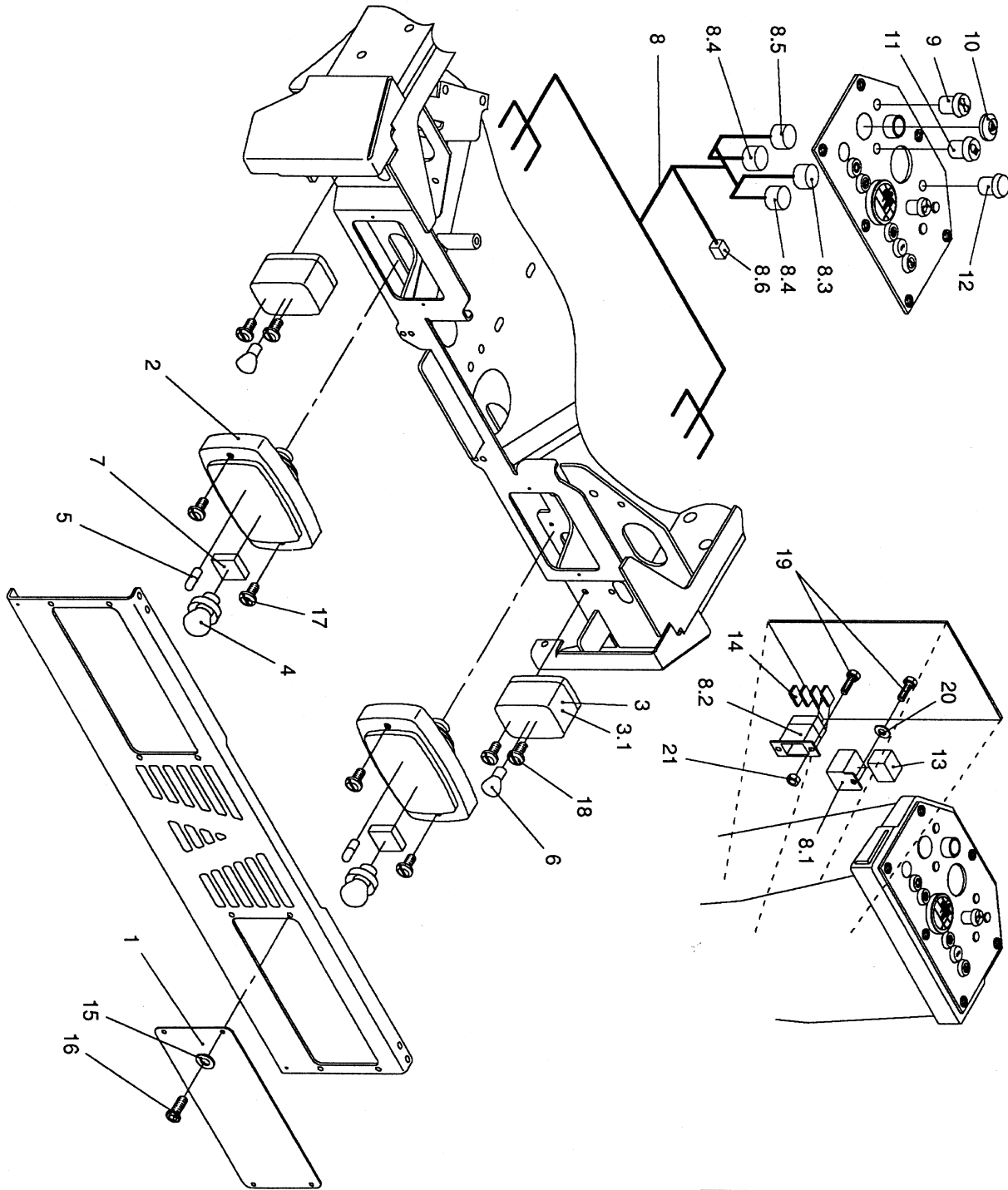
Cover Couverture	<p>OPTION</p>	61 - 1.1
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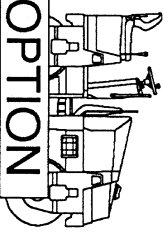
61-1.1  
COVER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL820742	COVER	4	
3	AVL923449	ALAN SCREW	16	



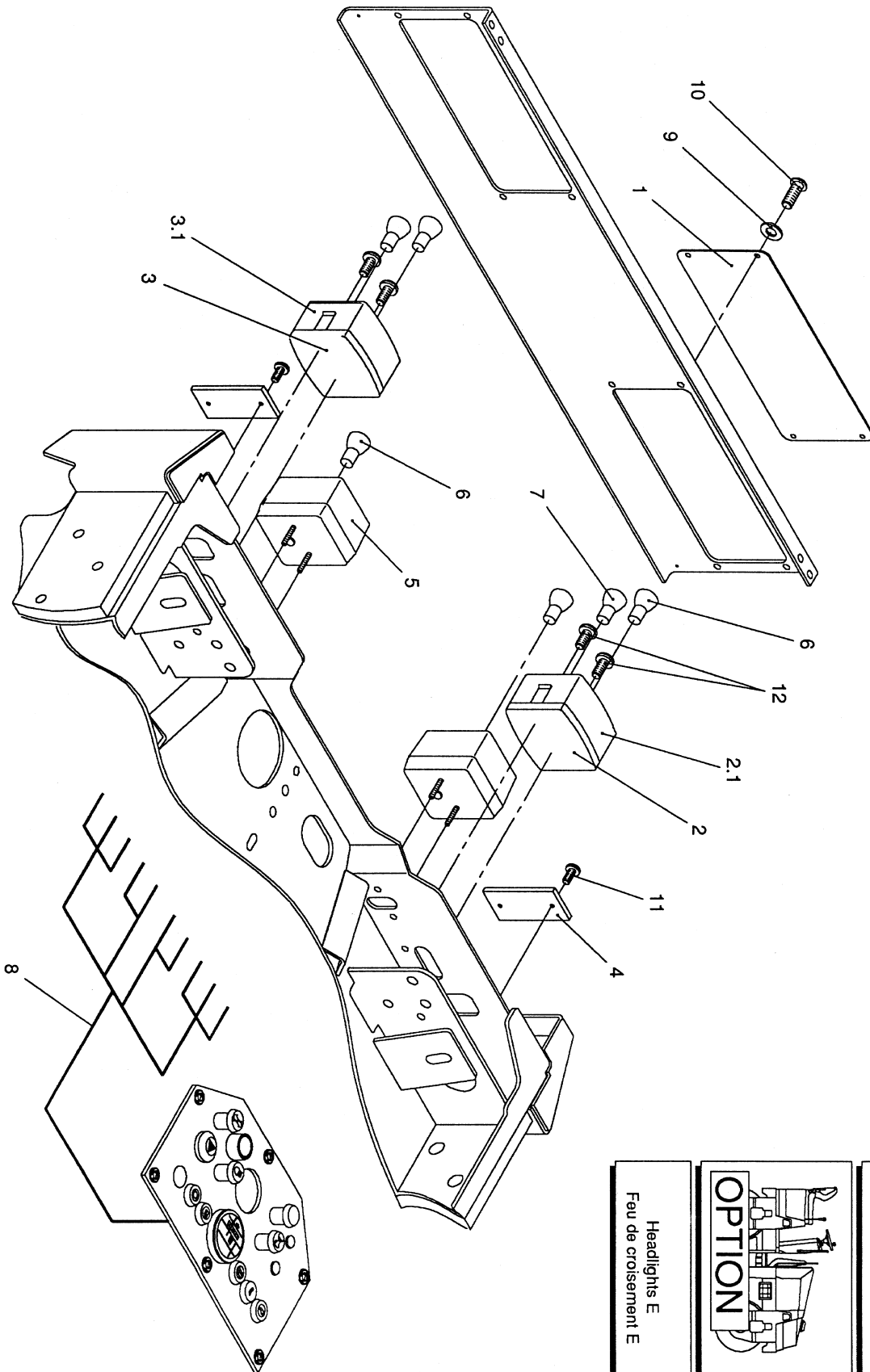
# HEADLIGHTS

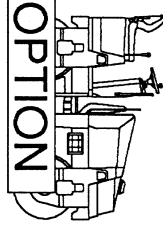


Headlights E Feu de croisement E	 OPTION	61 - 3.3
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61-3.3  
HEADLIGHTS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL824452	COVER	2	
2	AVL494812	WARNING LIGHT	2	
3	AVL494813	CLIGNOTEUR	2	
3.1	AVL9EL134658001	GLASS	2	
4	AVL921070	BULB	2	
5	AVL921233	BULB	2	
6	AVL912554	BULB	2	
7	AVL921687	CONNECTOR	2	
8	AVL366160	WIRING HARNESS	1	
8.1	AVL491804	SOCKET PLUG	1	
8.2	AVL923631	FUSE BOX	1	
8.3	AVL491797	CONNECTOR	1	
8.4	AVL491798	CONNECTOR	2	
8.5	AVL493940	CONNECTOR	1	
8.6	AVL912430	CONNECTOR HOUSING	1	
9	AVL491794	TURN SWITCH	1	
10	AVL493941	HAZARD SWITCH	1	
11	AVL494634	TURN SWITCH	1	
12	AVL492305	TURN SWITCH	1	
13	AVL491800	FLASHER SENDER	1	
14	AVL921583	FUSE	4	
15	AVL910148	CABLE BUSHING	8	
16	AVL923449	ALAN SCREW	8	
17	AVL902834	FLAT HEAD SCREW	4	
18	AVL902839	FLAT HEAD SCREW	4	
19	AVL901750	SCREW HEX. HEAD	3	
20	AVL902261	WASHER	2	
21	AVL902122	NUT HEX.	2	

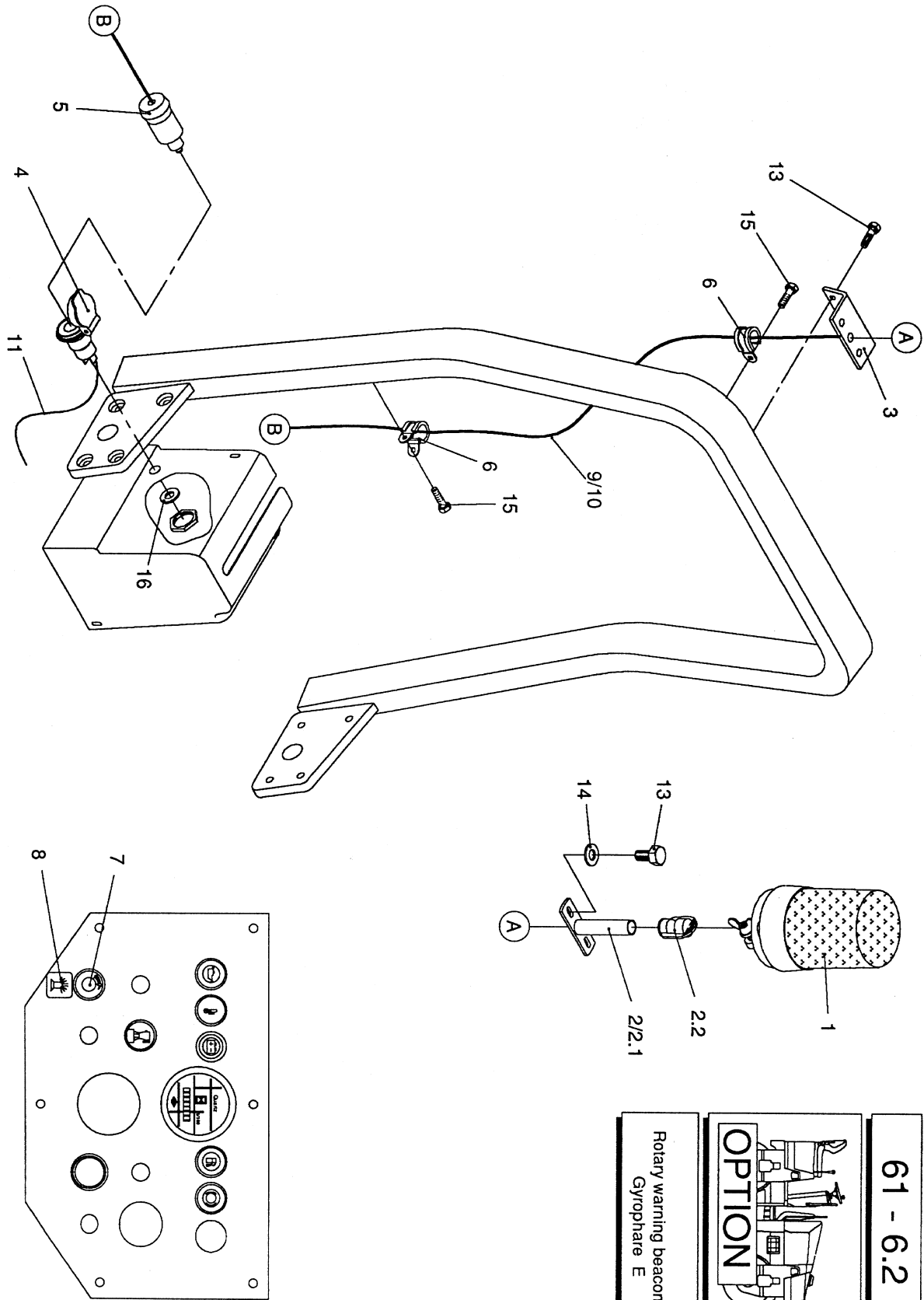


Headlights E Feu de croisement E		61 - 3.4
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61-3.4  
HEADLIGHTS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL824452	COVER	2	
2	AVL494119	WARNING LIGHT COMPLETE	1	
2.1	AVL9EL118614011	LAMP GLASS	1	
3	AVL494120	WARNING LIGHT COMPLETE	1	
3.1	AVL9EL118614011	LAMP GLASS	1	
4	AVL494895	REFLECTOR	2	
5	AVL494433	WARNING LIGHT COMPLETE	2	
6	AVL912554	BULB	4	
7	AVL912583	BULB	2	
8	AVL366160	WIRING HARNESS	1	
9	AVL910148	CABLE BUSHING	8	
10	AVL923449	ALAN SCREW	8	
11	AVL902831	FLAT HEAD SCREW	4	
12	AVL902839	FLAT HEAD SCREW	4	

# STROBE LIGHT

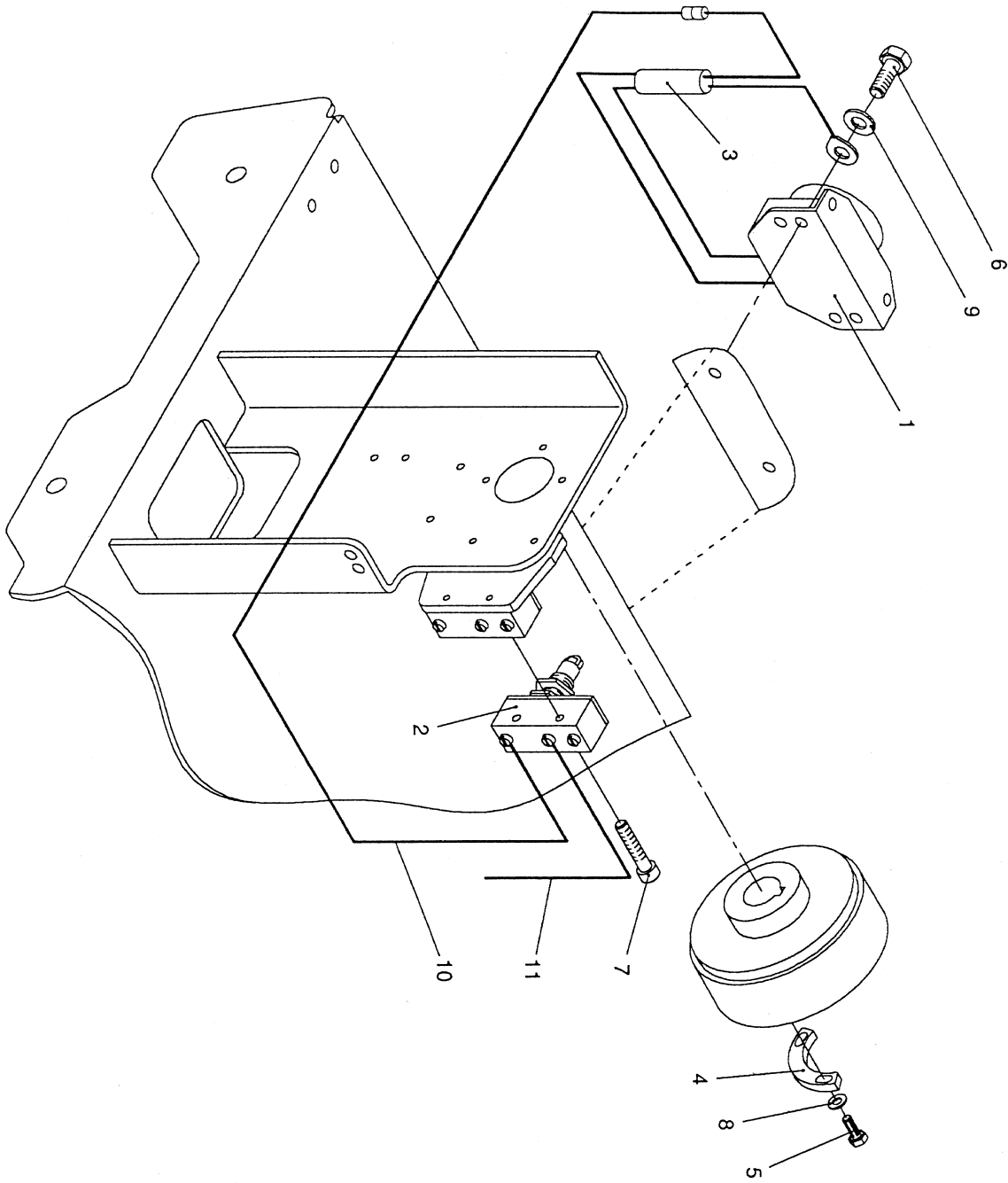


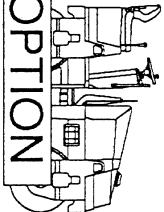
Rotary warning beacon E Gyrophare E	<b>OPTION</b> 	<b>61 - 6.2</b>
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61-6.2  
STROBE LIGHT

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL494625	WARNING LIGHT	1	
2	AVL494947	YARN SUPPLY CREEL	1	
2.1	AVL8JB850434011	SOCKET	1	
2.2	AVL9GH096532001	MOLDED RUBBER PART	1	
3	AVL824127	ANGLE	1	
4	AVL922971	SOCKET	1	
5	AVL922972	CONNECTOR	1	
6	AVL923687	PIPE CLAMP	9	
7	AVL492305	TURN SWITCH	1	
8	AVL820051	PLATE	1	
9	AVL912546	CABLE	1	
10	AVL923689	HOSE	1	
11	AVL824436	WIRING HARNESS	1	
13	AVL901764	SCREW HEX. HEAD	4	
14	AVL902263	WASHER	2	
15	AVL901749	SCREW HEX. HEAD	9	
16	AVL921748	WASHER	1	

# BACK-UP SIGNAL

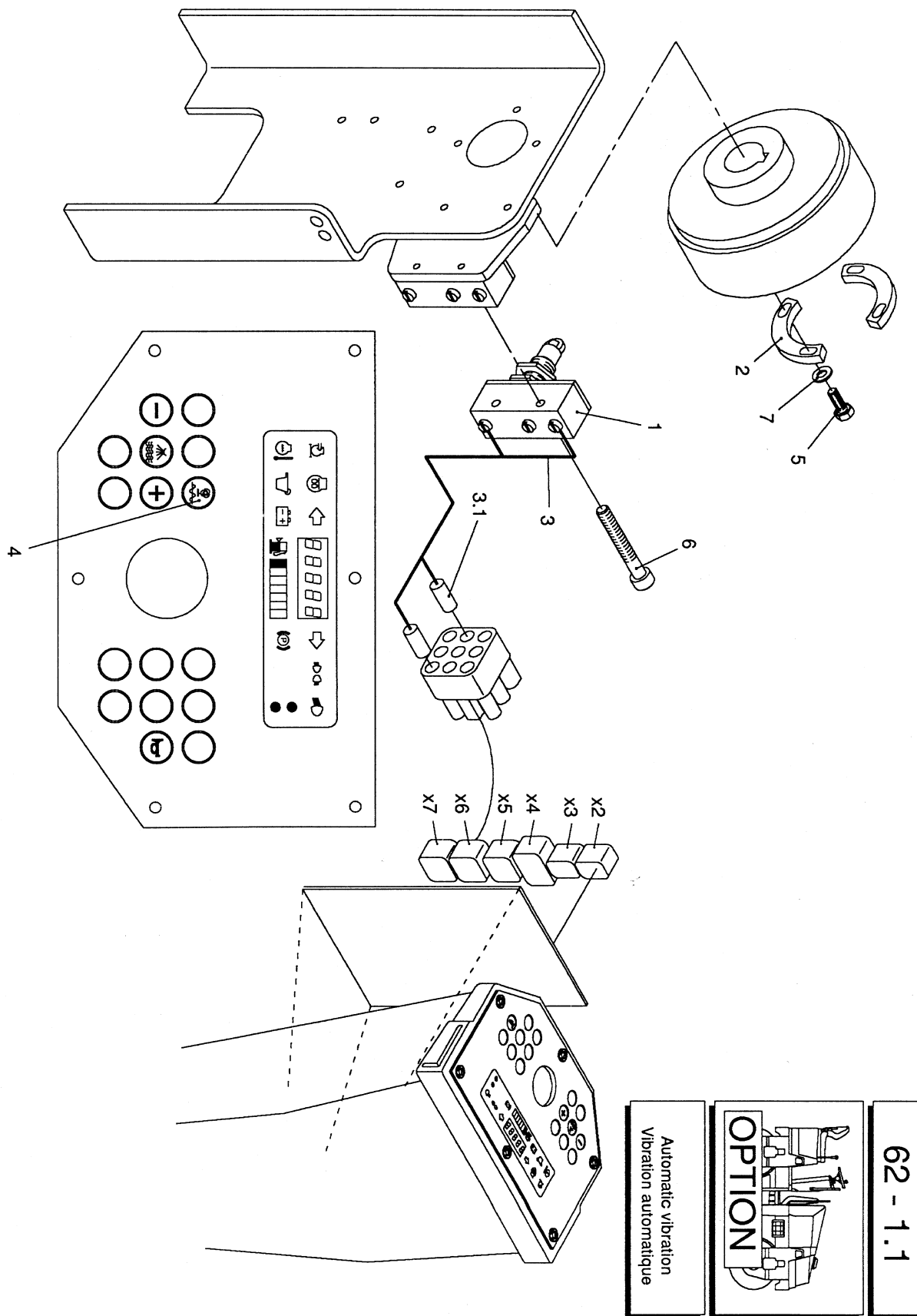


Back-up signal Bip-bip de recul	 <b>OPTION</b>	61 - 8.1
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61-8.1  
BACK-UP SIGNAL

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL495066	WARNING BUZZER	1	
2	AVL491401	SWITCH	1	
3	AVL824893	INTERFERENCE SUPPRESSOR	1	
4	AVL824534	CONTROL PIECE GEAR	1	
5	AVL901756	SCREW HEX. HEAD	2	
6	AVL901762	SCREW HEX. HEAD	2	
7	AVL902794	CHEESE HEAD SCREW	2	
8	AVL902262	WASHER	2	
9	AVL902489	TOOL HEAD WASHER	2	
10	AVL591422	CABLE	1	
11	AVL591421	CABLE	1	





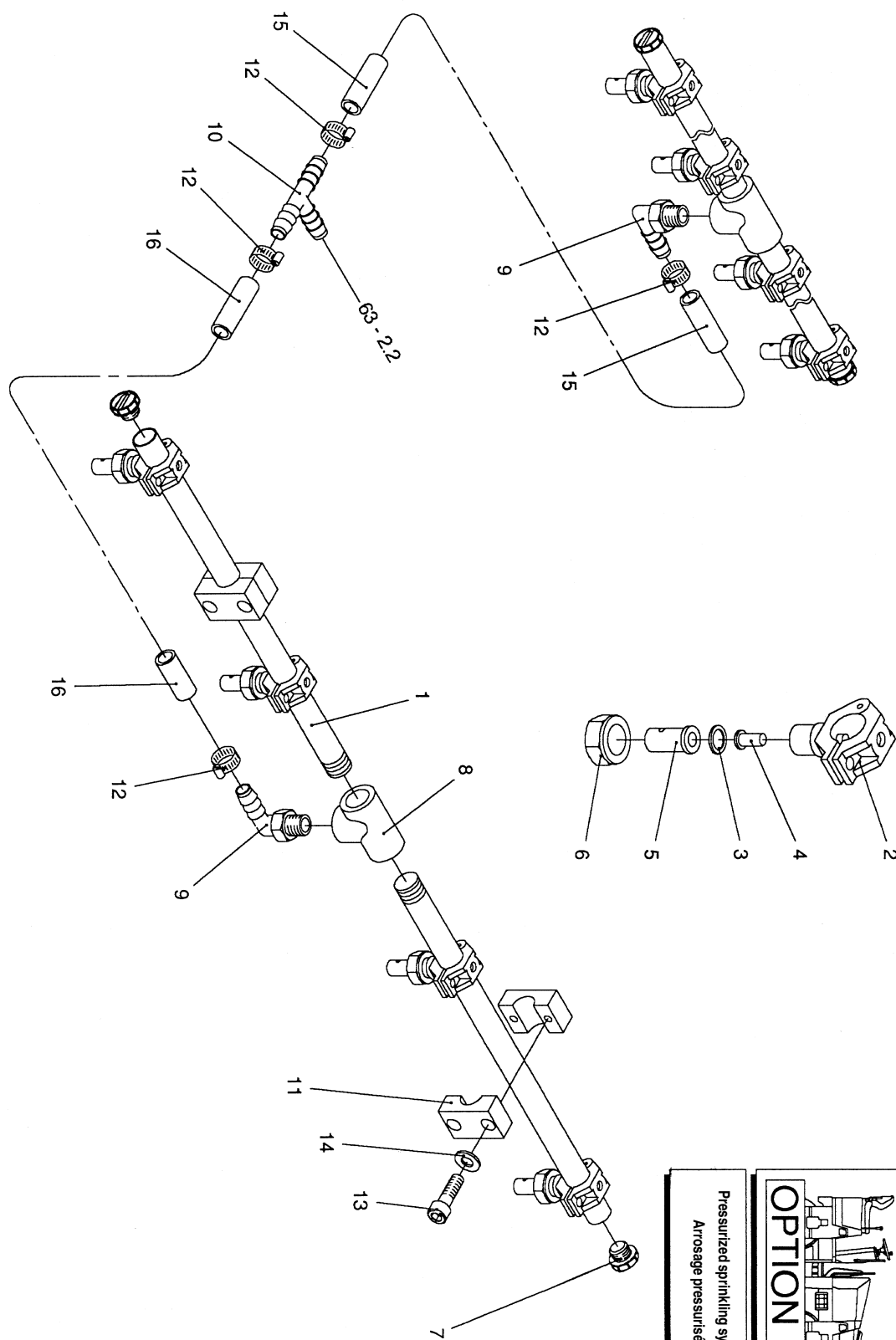
Automatic vibration Vibration automatique	<b>OPTION</b>	62 - 1.1
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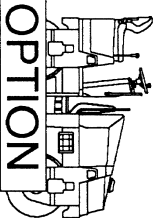
62-1.1

## AUTOMATIC VIBRATION

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL491401	SWITCH	1	
2	AVL824499	CONTROL PIECE GEAR	2	
3	AVL820265	CONNECTION CABLE	1	
4	AVL592572	SET OF PRESS-BUTTON SWITCHES	1	
5	AVL901756	SCREW HEX. HEAD	4	
6	AVL902794	CHEESE HEAD SCREW	2	
7	AVL902262	WASHER	4	

# PRESSURIZED SPRINKLING SYSTEM



63 - 2.1	 <b>OPTION</b>	Pressurized sprinkling system Arosage pressurisé
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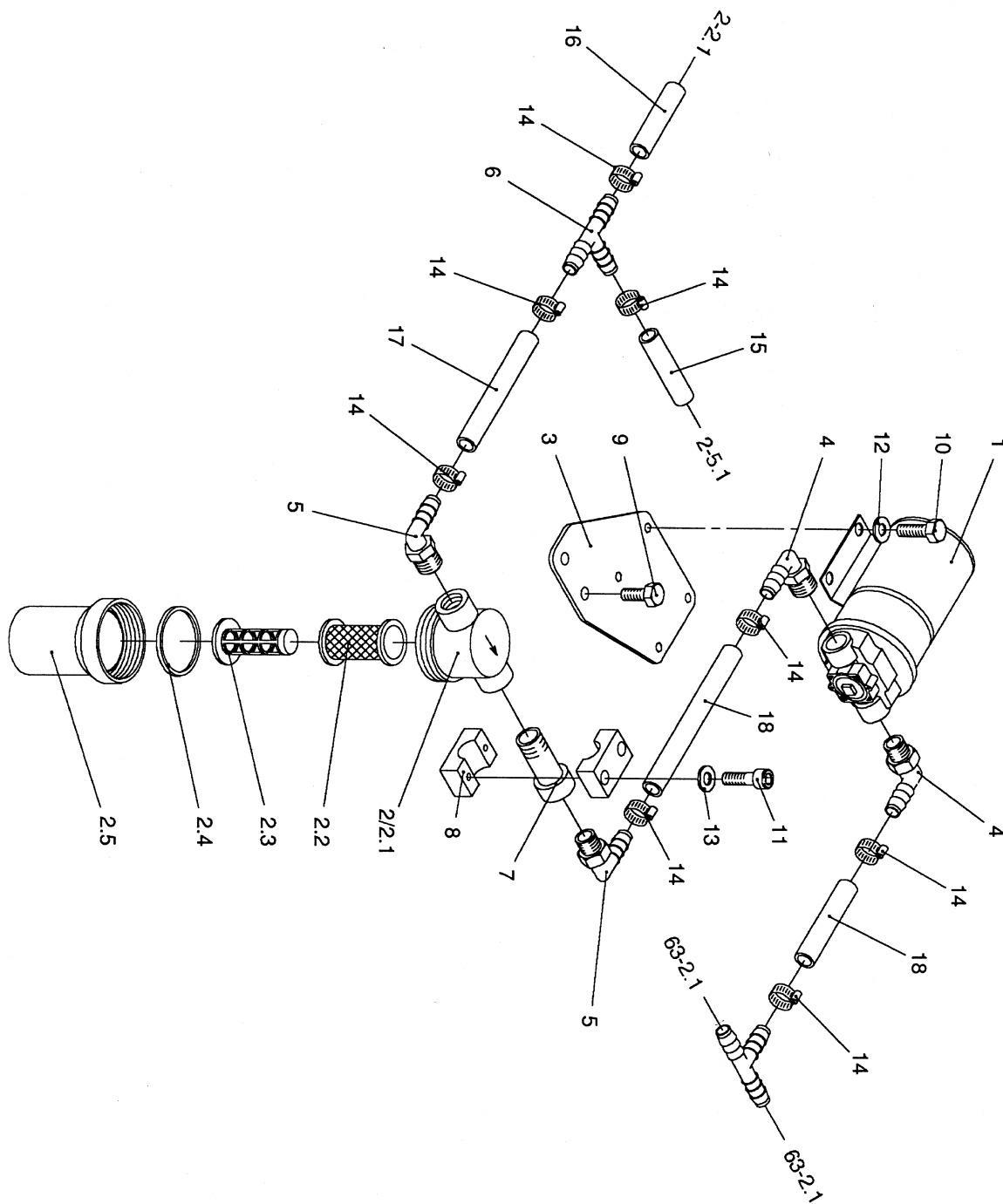
# PRESSURIZED SPRINKLING SYSTEM

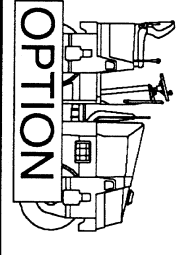
63-2.1

## PRESSURIZED SPRINKLING SYSTEM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL341578	SPRINKLER PIPE, T23	4	
1	AVL341635	SPRINKLER PIPE, T26	4	
1	AVL341739	SPRINKLER PIPE, T33	4	
2	AVL491751	STRAP	8	
3	AVL491752	SEAL RING	8	
4	AVL923967	CHECK VALVE	8	
5	AVL491753	NOZZLE	8	
6	AVL491754	COUPLING NUT	8	
7	AVL906609	PLUG	4	
8	AVL905293	FITTING	2	
9	AVL909398	REDUCER	2	
10	AVL921534	REDUCER	1	
11	AVL903726	HALF BOWL	8	
12	AVL908157	HOSE CLAMP	4	
13	AVL902682	ALAN SCREW	8	
14	AVL903719	WASHER	8	
15	AVL903792	HOSE	1	
16	AVL903792	HOSE	1	

# PRESSURIZED SPRINKLING SYSTEM



63 - 2.2		Pressurised sprinkling system Arrosage pressurisé
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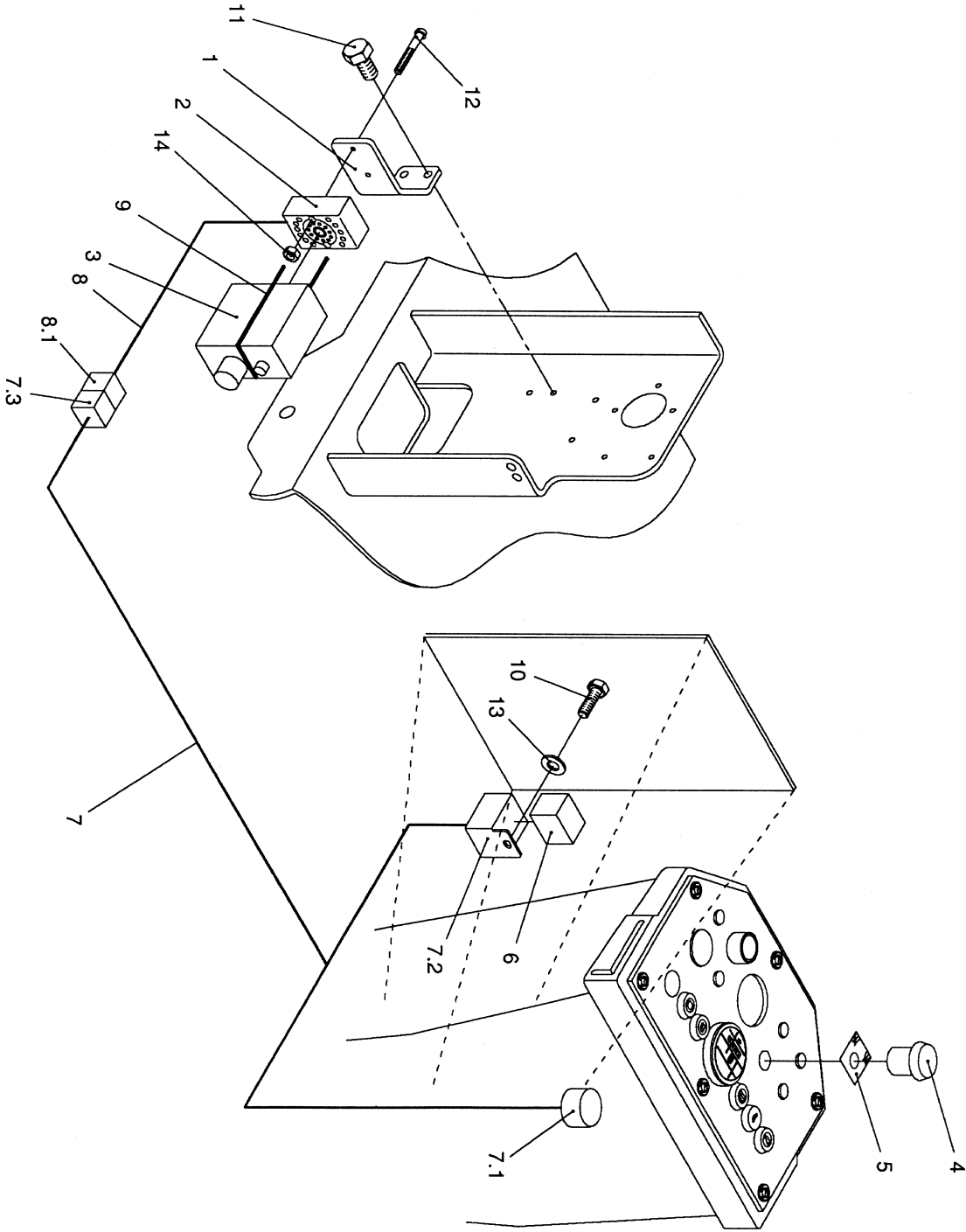
# PRESSURIZED SPRINKLING SYSTEM

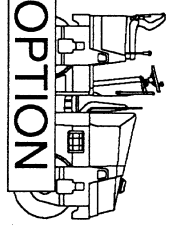
63-2.2

## PRESSURIZED SPRINKLING SYSTEM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL494981	WATER PUMP	1	
2	AVL494443	FILTER	1	
2.1	AVL921706	FILTER BASE	1	
2.2	AVL921710	ELEMENT	1	
2.3	AVL921709	FILTER HOLDER	1	
2.4	AVL921708	GASKET	1	
2.5	AVL921707	GLASS	1	
3	AVL824047	PLATE	1	
4	AVL901415	REDUCER	2	
5	AVL909398	REDUCER	2	
6	AVL921534	REDUCER	1	
7	AVL905413	EXTENSION	1	
8	AVL903727	HALF BOWL	2	
9	AVL901772	SCREW HEX. HEAD	2	
10	AVL901752	SCREW HEX. HEAD	4	
11	AVL902682	ALAN SCREW	2	
12	AVL908471	WASHER	4	
13	AVL903719	WASHER	2	
14	AVL908157	HOSE CLAMP	8	
15	AVL903792	HOSE	1	
16	AVL903792	HOSE	1	
17	AVL903792	HOSE	1	
18	AVL903792	HOSE	2	

# INTERVAL SPRINKLING



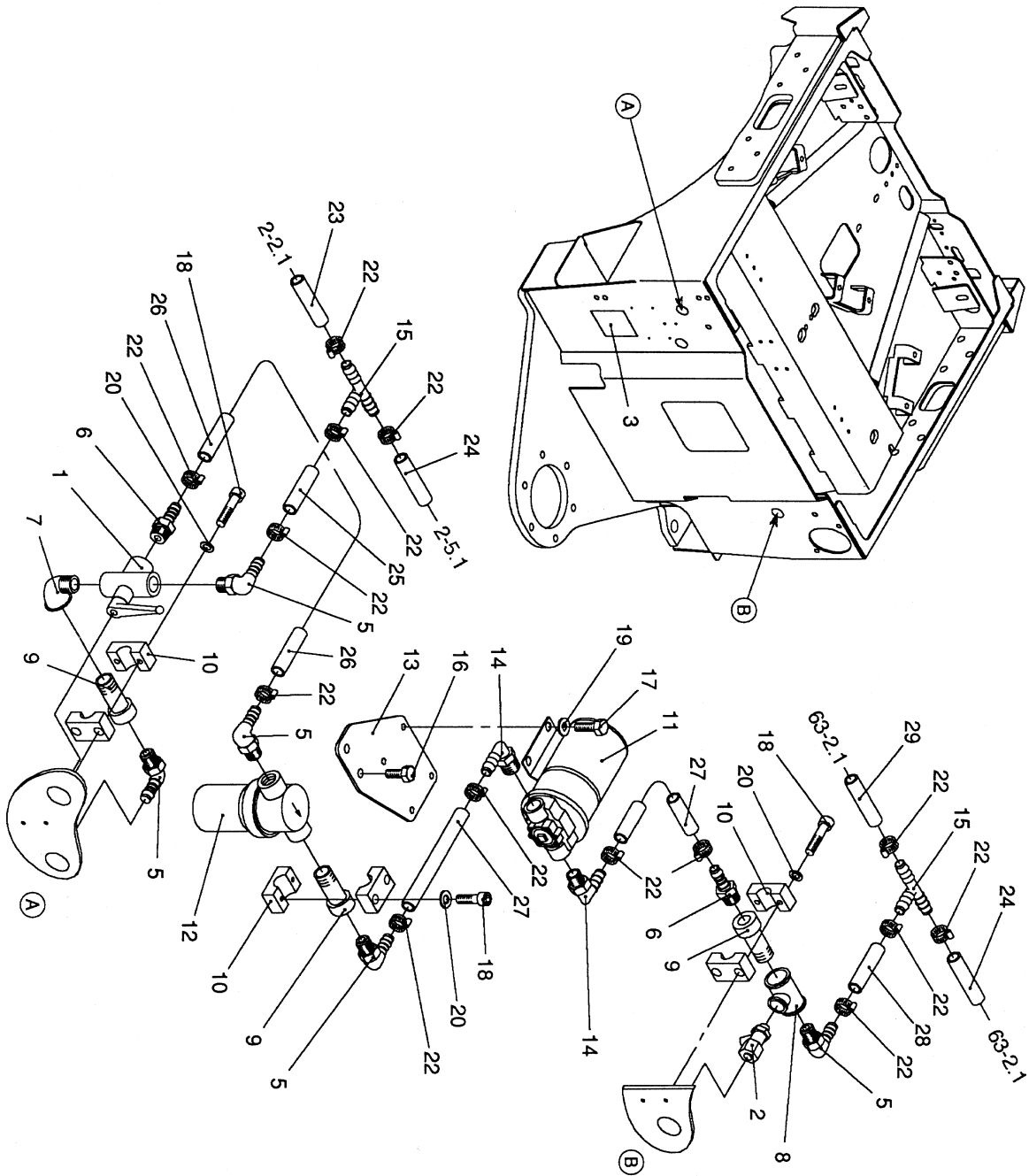
Interval sprinkling E Arrosage à intervalle E	 <b>OPTION</b>	63 - 4.1
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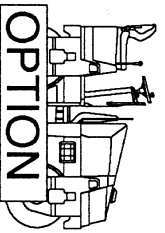
63-4.1  
INTERVAL SPRINKLING

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL824578	BRACKET	1	
2	AVL492979	SOCKET PLUG	1	
3	AVL494130	CLOCK GENERATOR	1	
4	AVL492303	TURN SWITCH	1	
5	AVL803507	SHIELD "SPRINKLER"	1	
6	AVL492344	RELAY	1	
7	AVL365887	WIRING HARNESS	1	
7.1	AVL491798	CONNECTOR	1	
7.2	AVL491804	SOCKET PLUG	1	
7.3	AVL912425	CONNECTOR HOUSING	1	
8	AVL477508	CONNECTION CABLE	1	
8.1	AVL912429	CONNECTOR HOUSING	1	
9	AVL912438	STRAP	1	
10	AVL901750	SCREW HEX. HEAD	1	
11	AVL901755	SCREW HEX. HEAD	2	
12	AVL921823	CHEESE HEAD SCREW	2	
13	AVL908471	WASHER	1	
14	AVL902120	NUT HEX.	2	



# SPECIAL SPRINKLER

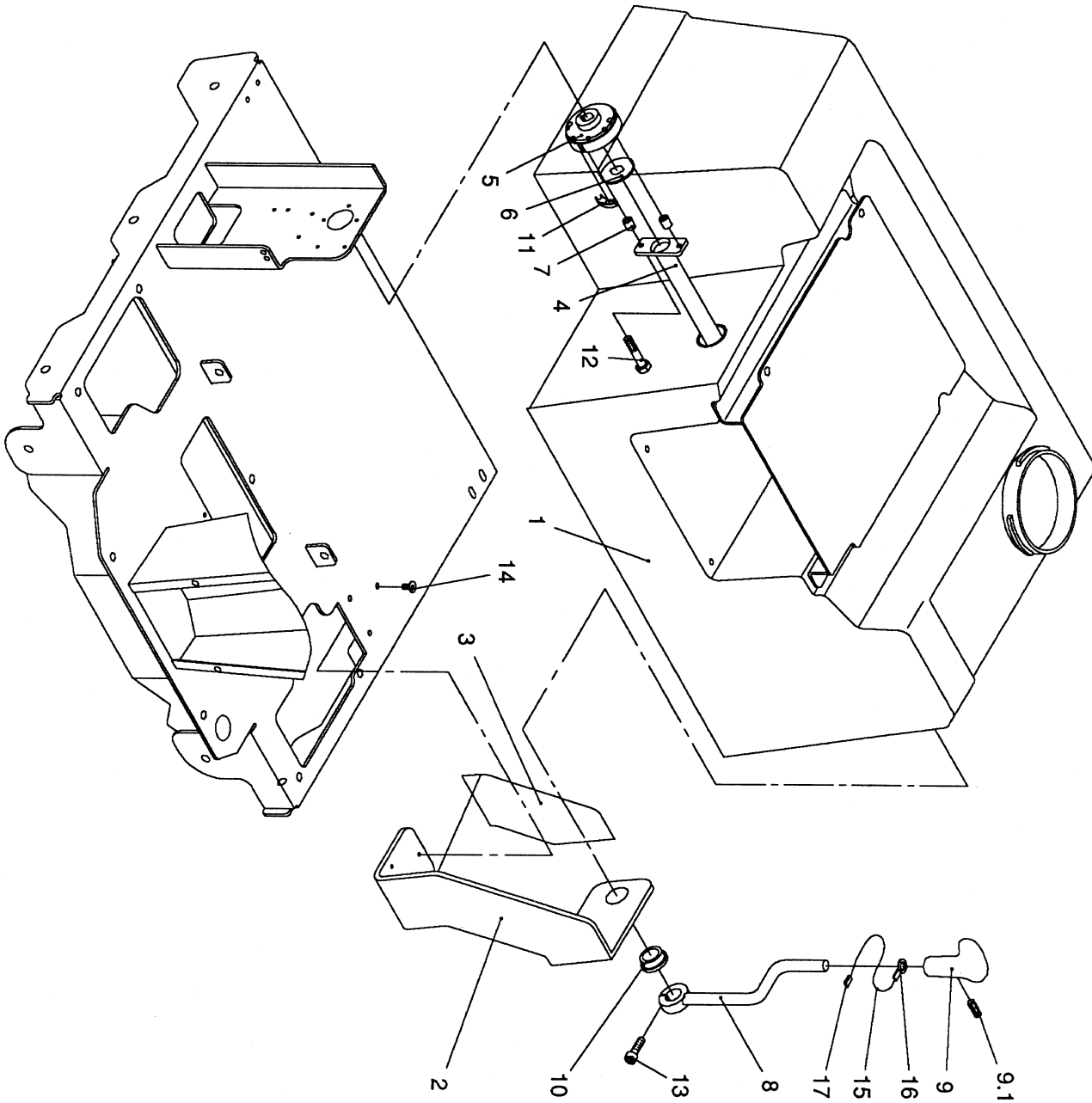


Special sprinkler Arrosage special	 OPTION	63 - 6.1
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63-6.1  
SPECIAL SPRINKLER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL495004	COCK	1	
2	AVL492346	VALVE	1	
3	AVL824174	PLATE	1	
5	AVL909398	REDUCER	5	
6	AVL908156	REDUCER	2	
7	AVL905273	ANGLE	1	
8	AVL905300	REDUCER	1	
9	AVL905412	EXTENSION	3	
10	AVL903727	HALF BOWL	6	
11	AVL494981	WATER PUMP	1	
12	AVL494443	FILTER	1	
13	AVL824047	PLATE	1	
14	AVL901415	REDUCER	2	
15	AVL921534	REDUCER	2	
16	AVL901772	SCREW HEX. HEAD	2	
17	AVL901752	SCREW HEX. HEAD	4	
18	AVL902682	ALAN SCREW	6	
19	AVL908471	WASHER	4	
20	AVL903719	WASHER	6	
22	AVL908157	HOSE CLAMP	12	
23	AVL903792	HOSE	1	
24	AVL903792	HOSE	1	
25	AVL903792	HOSE	1	
26	AVL903792	HOSE	2	
27	AVL903792	HOSE	1	
28	AVL903792	HOSE	1	
29	AVL903792	HOSE	1	

# REVERSING LEVER LEFT



Reversing lever left Levier de translation gauche	<b>OPTION</b>	65 - 1.1
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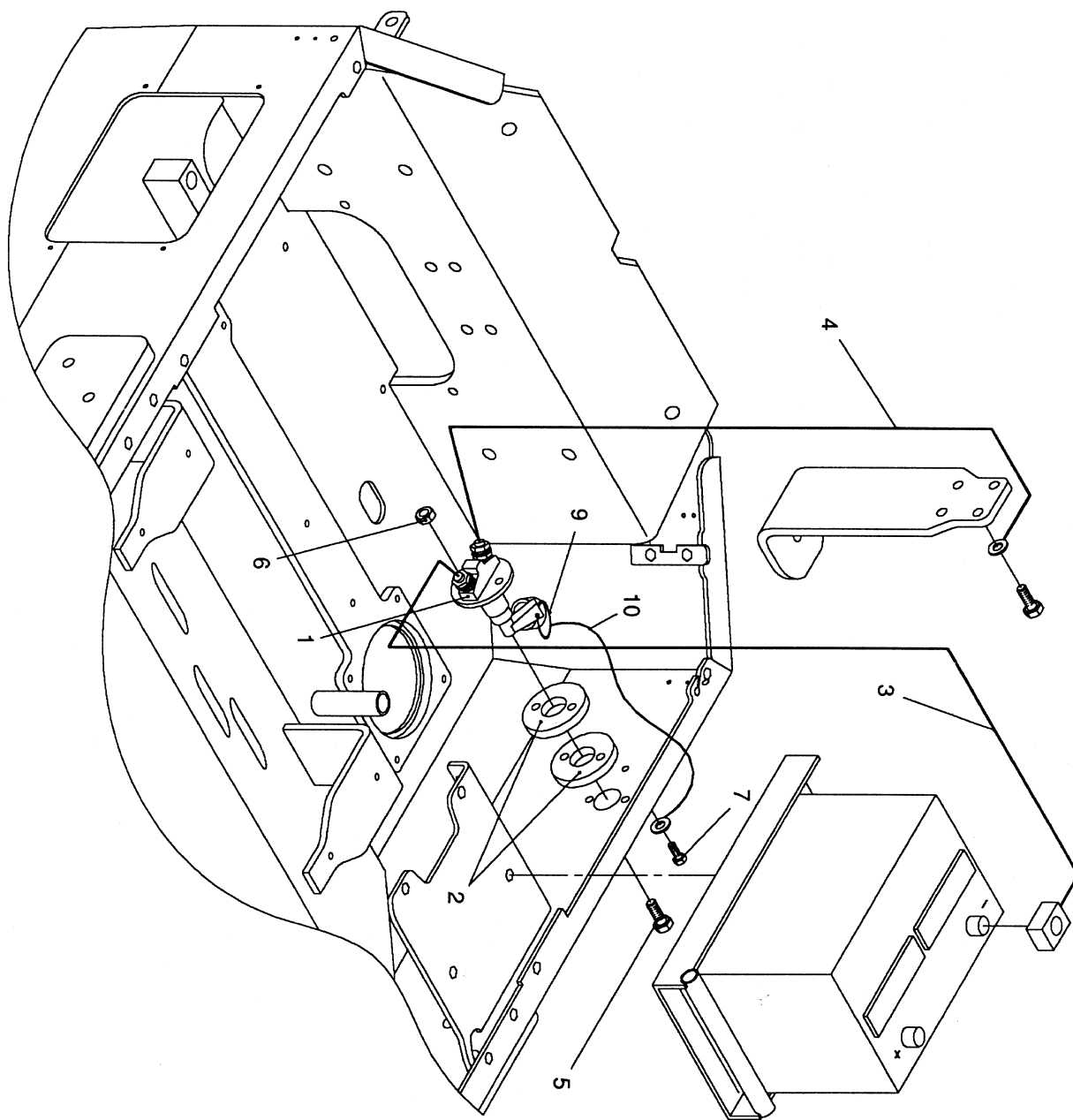
# REVERSING LEVER LEFT

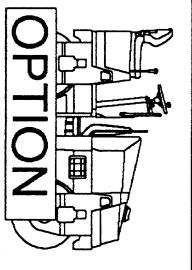
65-1.1

## REVERSING LEVER LEFT

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL236815	WATER TANK	1	
2	AVL824878	DRIVE LEVER BRACKET	1	
3	AVL824571	RUBBER PLATE	1	
4	AVL824545	EXTENSION	1	
5	AVL365223	BRAKE DISK	1	
6	AVL824575	SPACER DISK	1	
7	AVL820714	CORE (CONNECTOR)	2	
8	AVL366226	DRIVER LEVER	1	
9	AVL495049	HANDLE	1	
9.1	AVL903225	HEXAGON ALAN PIN	1	
10	AVL820709	CORE (CONNECTOR)	1	
11	AVL824499	CONTROL PIECE GEAR	1	
12	AVL901851	SCREW HEX. HEAD	2	
13	AVL902633	ALAN SCREW	1	
14	AVL908876	COUNTERSUNK SCREW	3	
15	AVL923478	CABLE	1	
16	AVL910992	CABLE BRACKET ANNULAR	1	
17	AVL912423	SLEEVE	1	

# BATTERY DISCONNECTION SWITCH



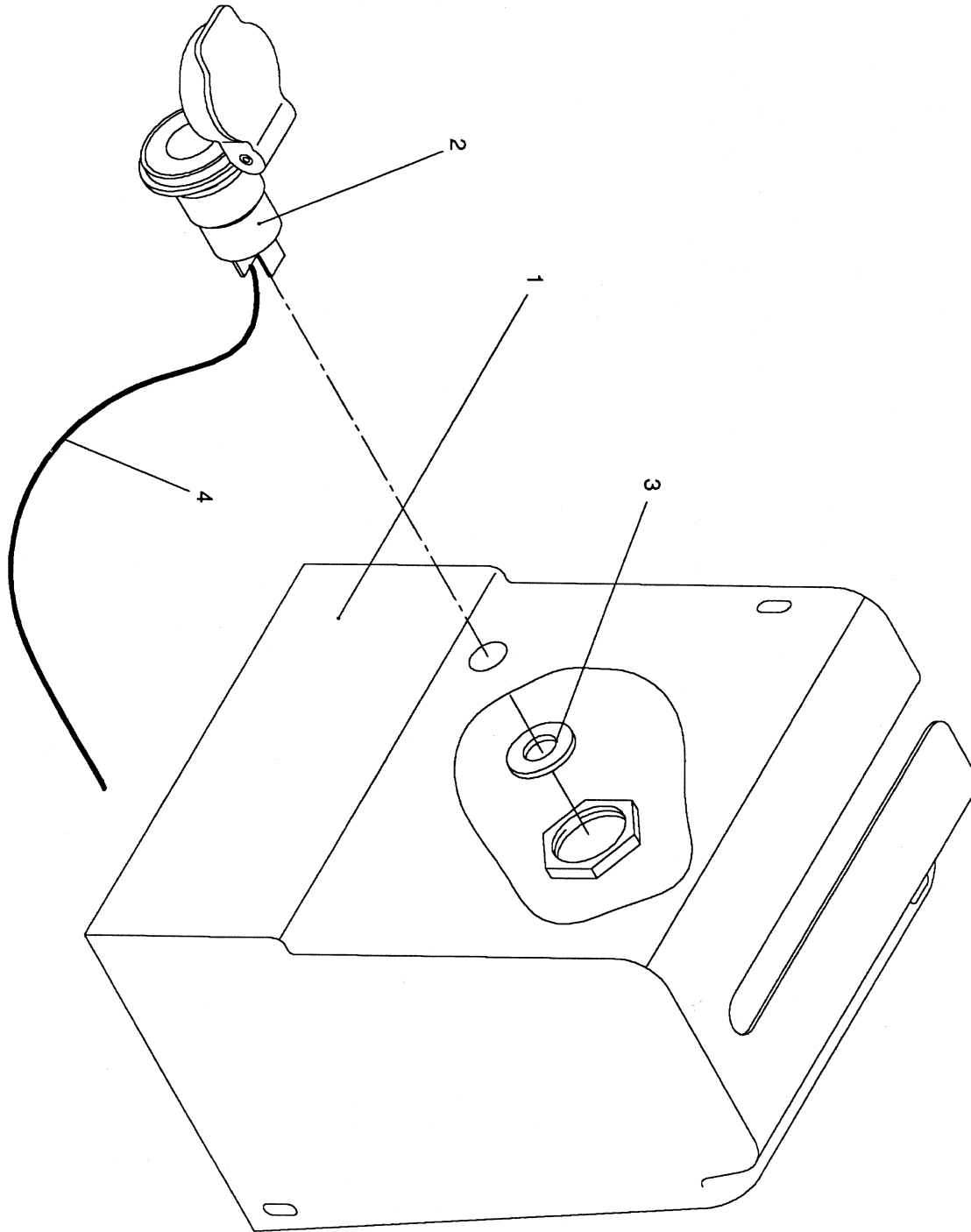
Battery disconnection switch Coupe - batterie	 <b>OPTION</b>	66 - 4.1
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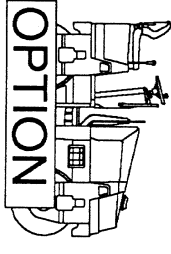
# BATTERY DISCONNECTION SWITCH

66-4.1

## BATTERY DISCONNECTION SWITCH

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL495006	BATTERY SWITCH	1	
2	AVL824560	SPACER DISK	2	
3	AVL824456	BATTERY CABLE (NEGATIVE)	1	
4	AVL820812	CONNECTION CABLE	1	
5	AVL901862	SCREW HEX. HEAD	2	
6	AVL902124	NUT HEX.	2	
7	AVL901751	SCREW HEX. HEAD	1	
9	AVL903497	KEY RING	1	
10	AVL906485	CHAIN	1	

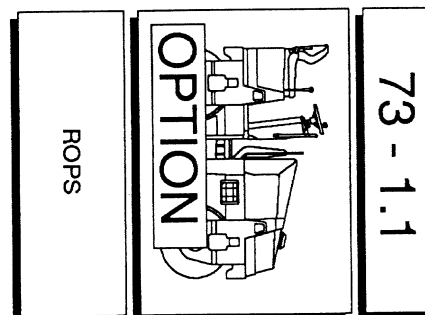
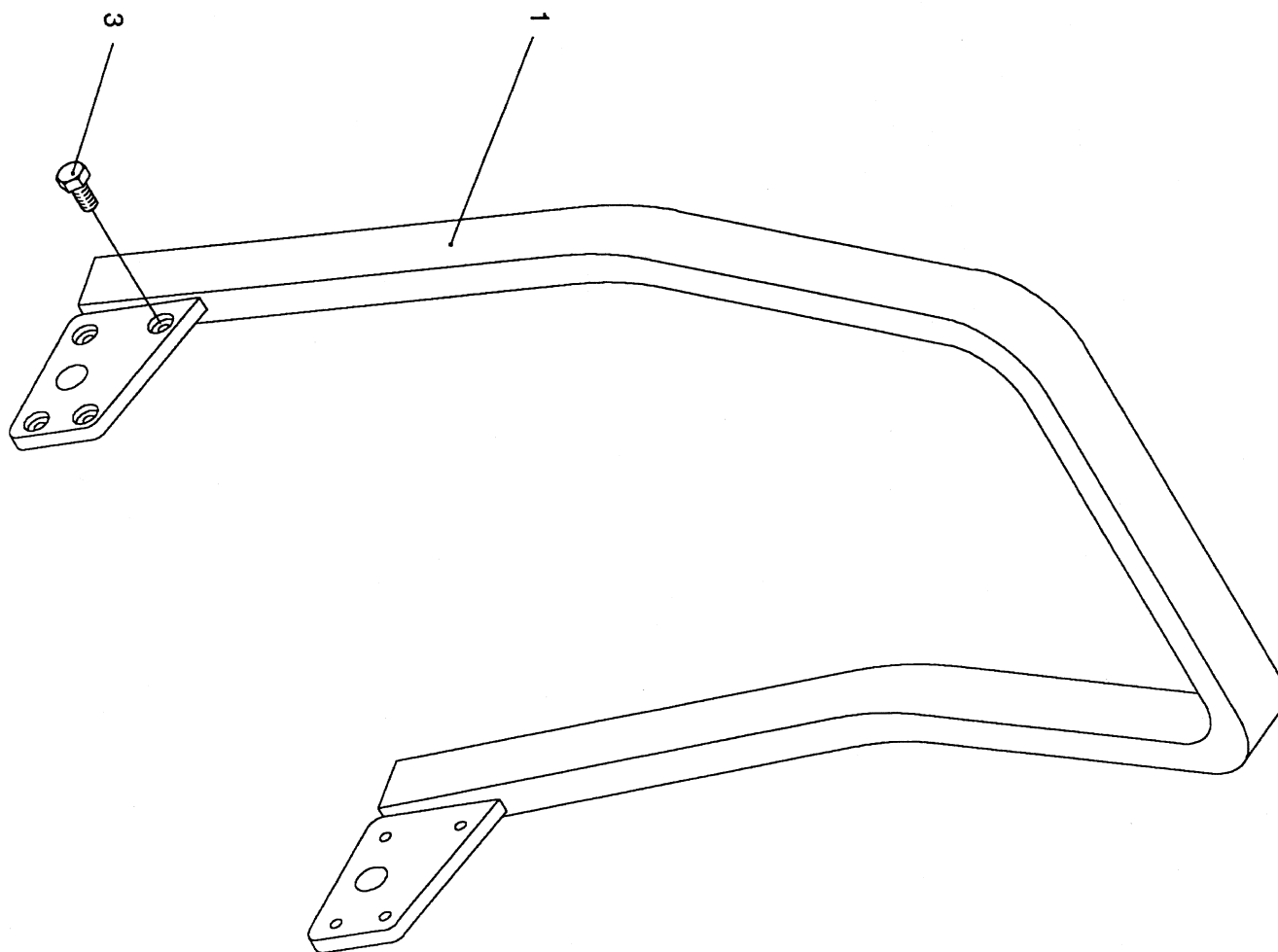


72 - 2.1
 <b>OPTION</b>
Seat heating Chauffage siège

72-2.1  
SEAT HEATING

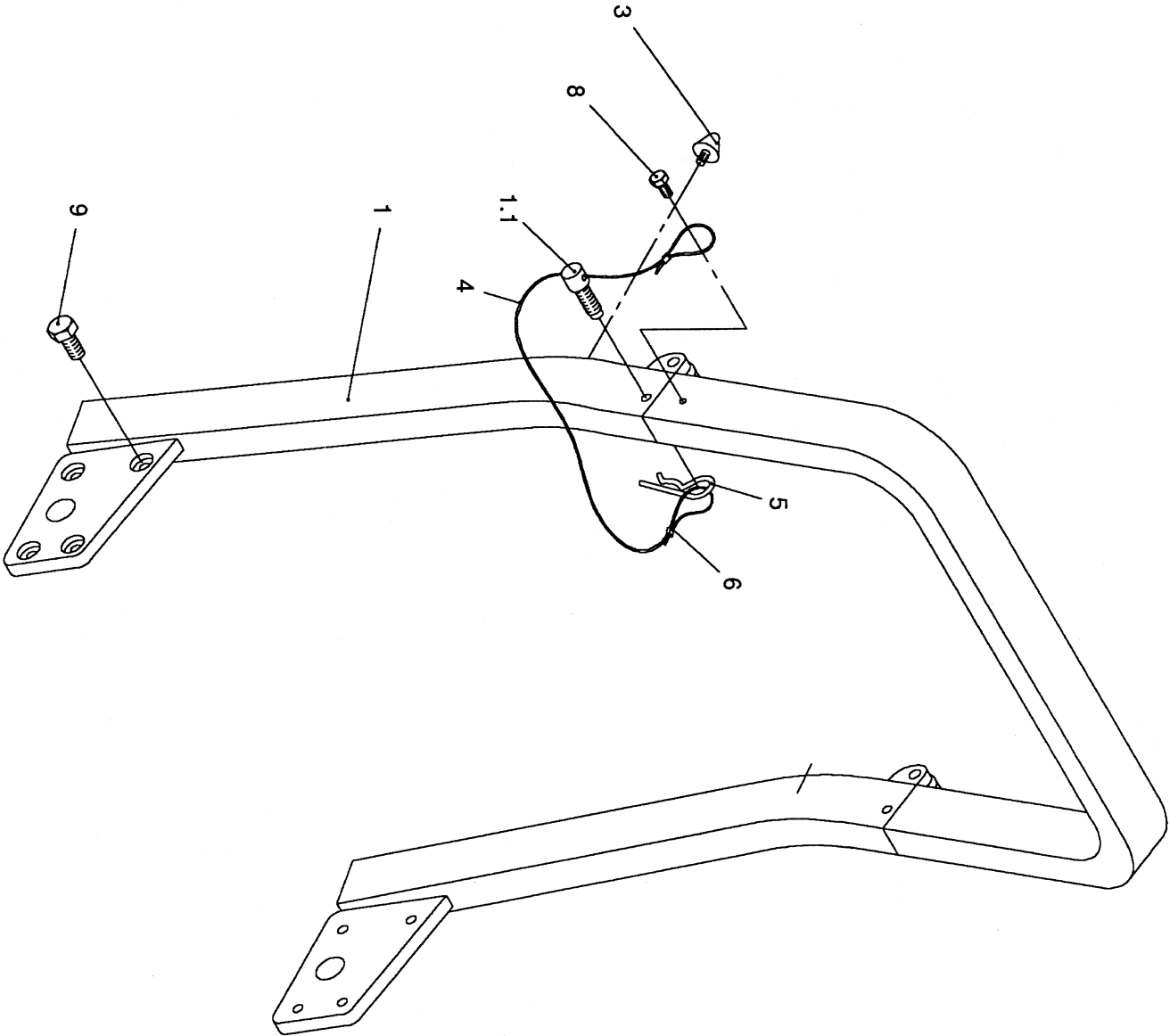
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL824548	COVER	1	
2	AVL922971	SOCKET	1	
3	AVL921748	WASHER	1	
4	AVL924559	CABLE	1	

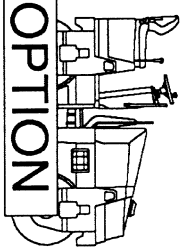




73-1.1  
ROPS

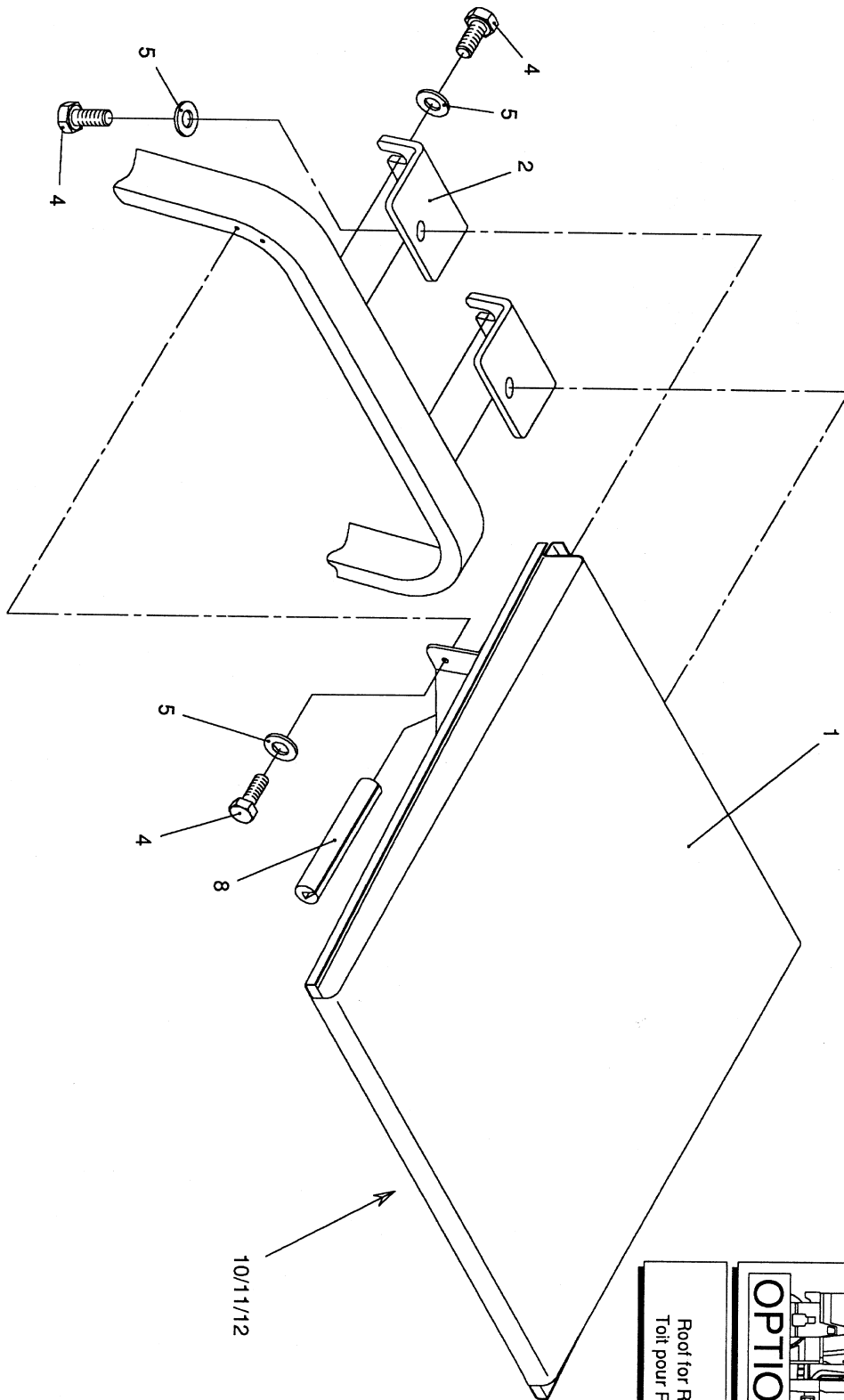
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL365963	R O P S	1	
3	AVL901800	SCREW HEX. HEAD	8	

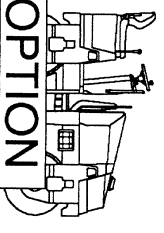


Tiltable ROPS ROPS repliable	 <b>OPTION</b>	73 - 1.2
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73-1.2  
TILTABLE ROPS

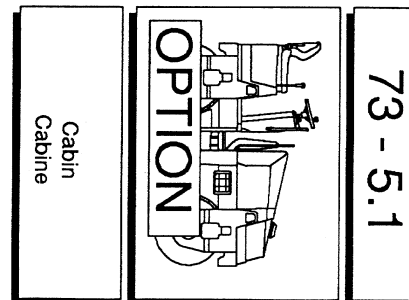
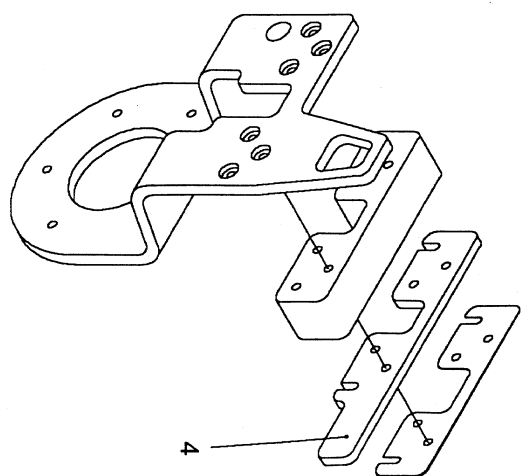
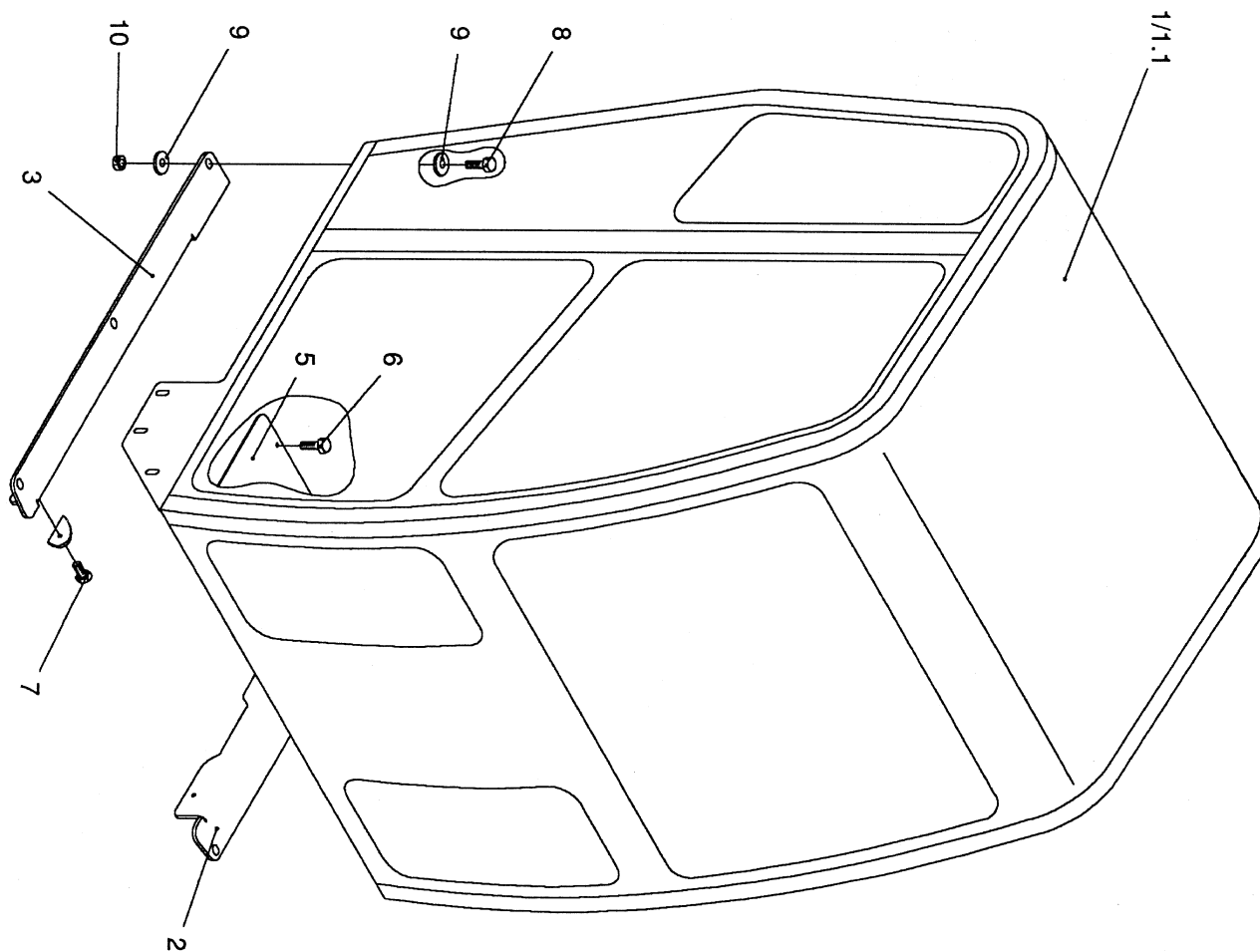
<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL236891	COLLAPSIBLE R O P S	1	
1.1	AVL2368913	PIN	2	
3	AVL920089	RUBBER SPACER	2	
4	AVL922953	WIRE CABLE	2	
5	AVL903494	HAIRPIN COTTER	2	
6	AVL922952	PRESSURE CLAMP	4	
8	AVL901754	SCREW HEX. HEAD	2	
9	AVL901800	SCREW HEX. HEAD	8	



Roof for ROPS Toit pour ROPS	 <b>OPTION</b>	<b>73 - 3.1</b>
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73-3.1  
ROOF FOR ROPS

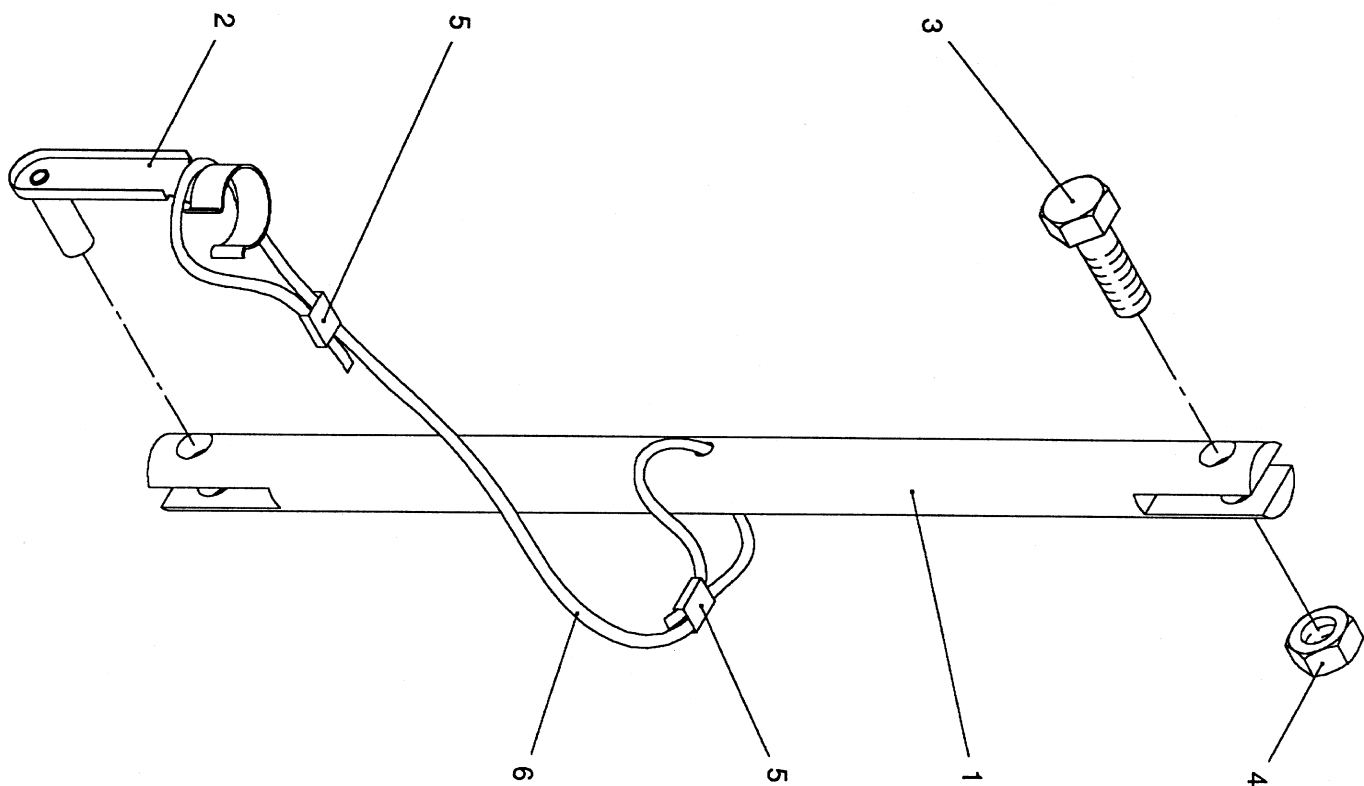
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	AVL365728	ROOF	1	
2	AVL824394	ANGLE	2	
4	AVL901773	SCREW HEX. HEAD	10	
5	AVL902286	WASHER	10	
8	AVL908155	SOFT RUBBER PROFILE	2	
10	AVL592029	SOUND PROTECTION	1	
11	AVL592030	SOUND PROTECTION	1	
12	AVL592031	SOUND PROTECTION	1	



73-5.1  
CABIN

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL135553	CABIN	1	
1.1	AVL592566	SPARE PARTS LIST FOR CABIN	1	
2	AVL365964	CABIN BRACKET (LEFT)	1	
3	AVL365965	CABIN BRACKET (RIGHT)	1	
4	AVL824955	DISTANCE PLATE	2	
5	AVL824989	PLATE	1	
6	AVL901763	SCREW HEX. HEAD	8	
7	AVL901772	SCREW HEX. HEAD	6	
8	AVL901775	SCREW HEX. HEAD	6	
9	AVL902286	WASHER	12	
10	AVL902125	NUT HEX.	6	

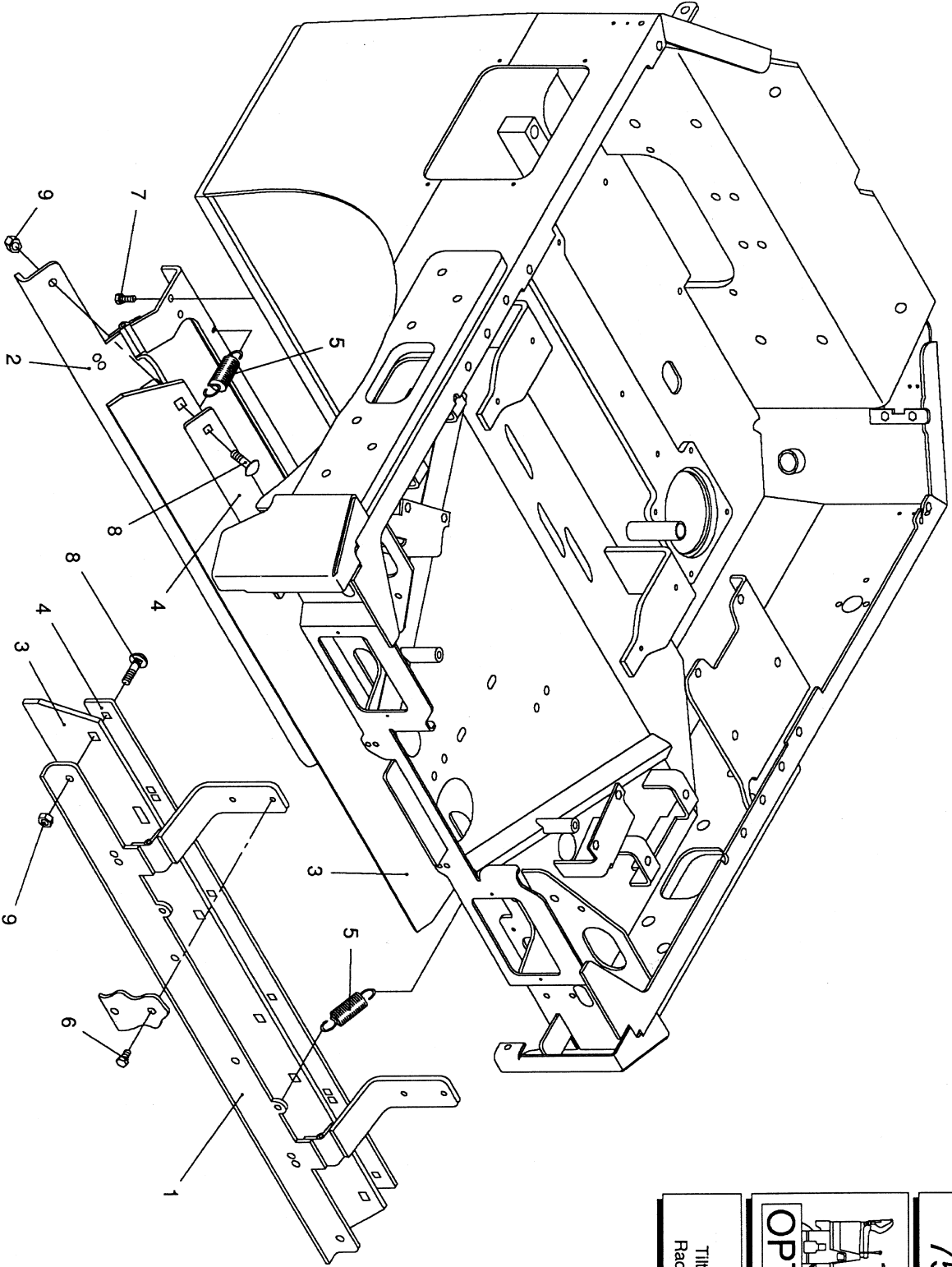


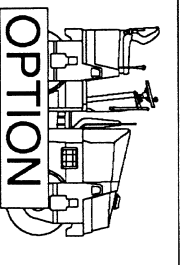


74 - 1.1
 OPTION
Lock Pin Goupille anti-perte

74-1.1  
LOCK PIN

<b><u>NO</u></b>	<b><u>PART NO</u></b>	<b><u>PART NAME</u></b>	<b><u>QTY.</u></b>	<b><u>REMARKS</u></b>
1	AVL365858	FIXING DEVICE	1	
2	AVL903668	E S BOLT	1	
3	AVL901784	SCREW HEX. HEAD	1	
4	AVL902126	NUT HEX.	1	
5	AVL922952	PRESSURE CLAMP	2	
6	AVL922953	WIRE CABLE	1	



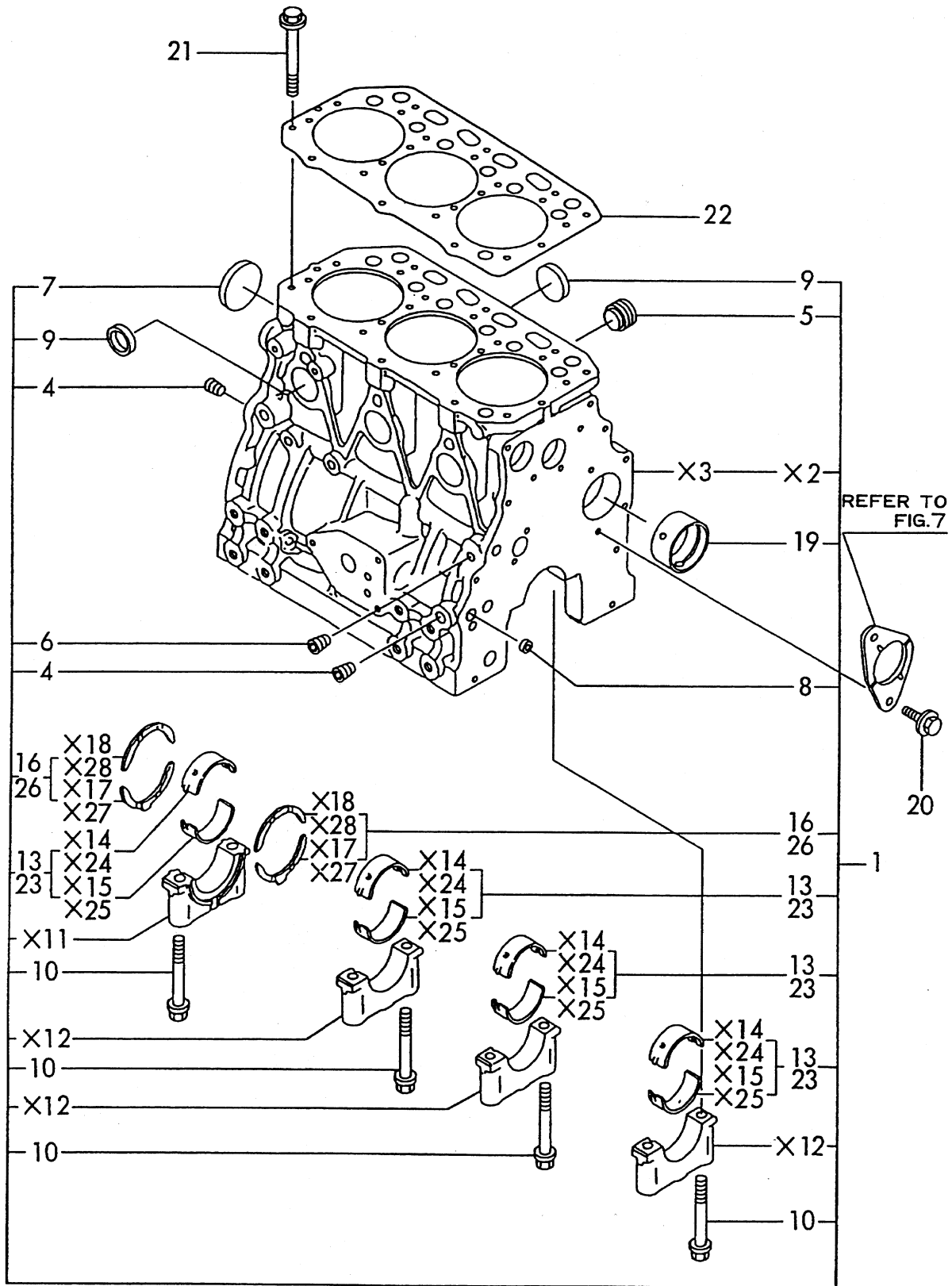
Tiltable scraper Racleur repliable	 OPTION	75 - 5.1
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75-5.1  
TILTABLE SCRAPER

<b>NO</b>	<b>PART NO</b>	<b>PART NAME</b>	<b>QTY.</b>	<b>REMARKS</b>
1	AVL366280	SCRAPER BRACKET, T23	2	
1	AVL366284	SCRAPER BRACKET, T26	2	
1	AVL366288	SCRAPER BRACKET, T33	2	
2	AVL366281	SCRAPER BRACKET, T23	2	
2	AVL366285	SCRAPER BRACKET, T26	2	
2	AVL366289	SCRAPER BRACKET, T33	2	
3	AVL449730	SCRAPER, T23	4	
3	AVL465181	SCRAPER, T26	4	
3	AVL803961	SCRAPER, T33	4	
4	AVL341410	PLATE, T23	4	
4	AVL341411	PLATE, T26	4	
4	AVL341710	PLATE, T33	4	
5	AVL495054	PULL SPRING	8	
6	AVL901772	SCREW HEX. HEAD	8	
7	AVL901773	SCREW HEX. HEAD	8	
8	AVL921649	SAUCER HEAD SCREW	24	
9	AVL902206	NUT HEX.	24	

# YANMAR 3TNE88 DIESEL ENGINE — CYLINDER BLOCK

**FIG. 1**



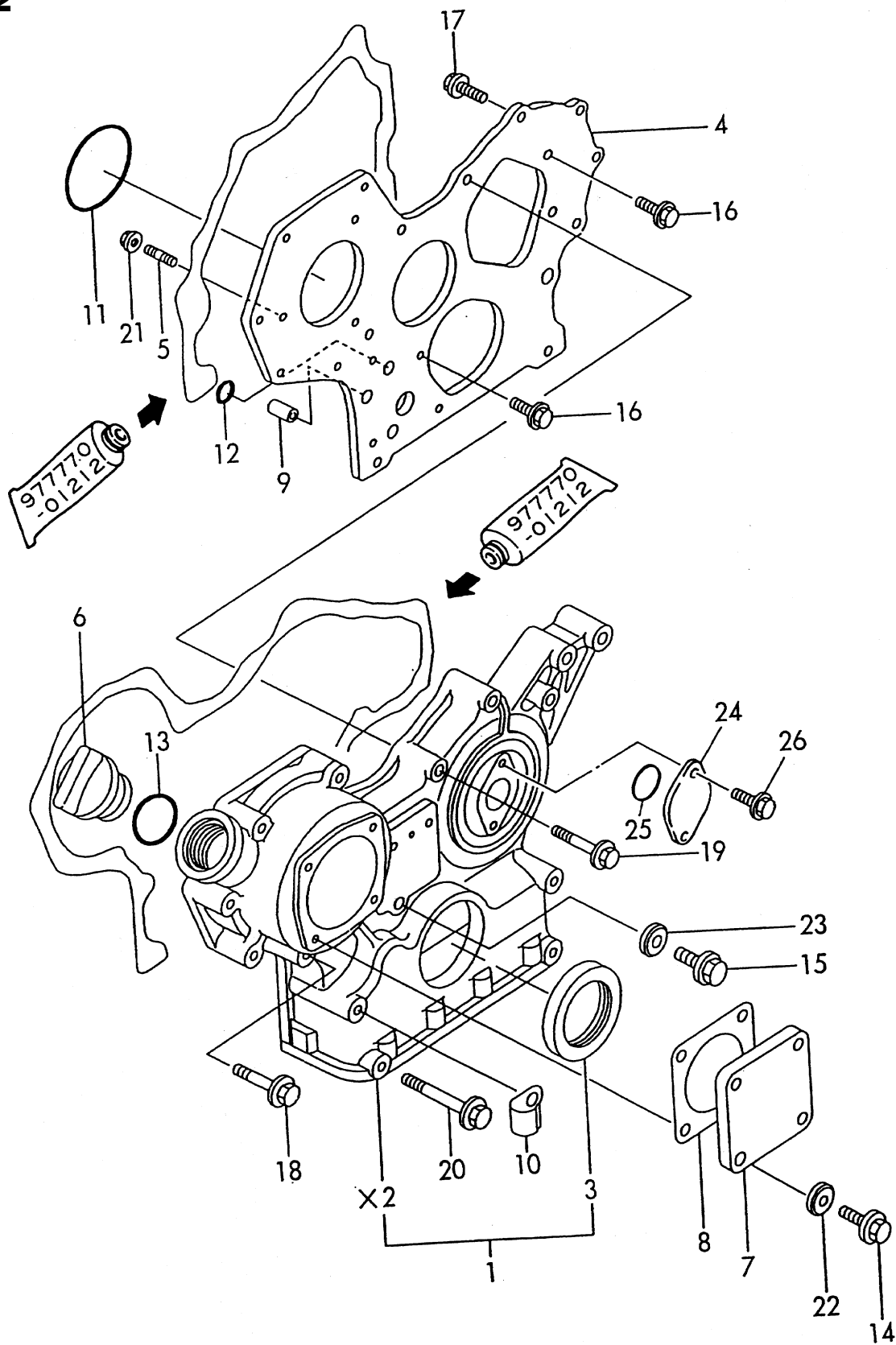
# YANMAR 3TNE88 DIESEL ENGINE — CYLINDER BLOCK

## CYLINDER BLOCK

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	729001-01560	BLOCK ASSY, CYLINDER .....	1 .....	INCLUDES ITEMS w/*
2*		BLOCK ASSY, CYLINDER .....	1 .....	NOT SOLD SEPARATELY
3*		BLOCK, CYLINDER .....	1 .....	NOT SOLD SEPARATELY
4*	124160-01910	PLUG PT 1/4	3	
5*	171051-01921	PLUG	1	
6*	23871-010000	PLUG PT 1/8, SCREW	1	
7*	27231-500000	PLUG 50	1	
8*	27241-120000	PLUG 12	2	
9*	27243-300000	PLUG 30 .....	6 .....	REPLACES 27241-300000
10*	129150-02020	BOLT, BEARING CAP	8	
11*		BEARING CAP .....	1 .....	NOT SOLD SEPARATELY.
12*		BEARING CAP .....	3 .....	NOT SOLD SEPARATELY.
13*	129001-02800	MAIN BEARING .....	4 .....	INCLUDES ITEMS w/#
14*#		MAIN BEARING, UPPER .....	4 .....	NOT SOLD SEPARATELY.
15*#		MAIN BEARING, LOWER .....	4 .....	NOT SOLD SEPARATELY.
16*	129150-02930	BEARING, THRUST .....	2 .....	INCLUDES ITEMS w/+
17*+		THRUST BEARING, LOWER .....	2 .....	NOT SOLD SEPARATELY.
18*+		THRUST BEARING, UPPER .....	2 .....	NOT SOLD SEPARATELY.
19*	129795-02411	BUSH, CAMSHAFT	1	
20	26106-080162	BOLT M 8X16 PLATED	2	
21	129150-01200	STUD, CYLINDER HEAD	14	
22	129001-01340	GASKET, (NON-ASB.) .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601
23*	129150-02870	MAIN BEARING US=0.25 .....	4 .....	UNDER-SIZE (US=0.25) PART., INCLUDES ITEMS w/%
24*%		MAIN BEARING US=0.25 .....	4 .....	UNDER-SIZE (US=0.25) PART. NOT SOLD SEPARATELY.
25*%		MAIN BEARING US=0.25 .....	4 .....	UNDER-SIZE (US=0.25) PART. NOT SOLD SEPARATELY.
26*	129150-02940	BEARING, THRUST .250S .....	2 .....	OVER-SIZE (OS=0.25) PART., INCLUDES ITEMS w/■
27*■		BEARING, THRUST .250S .....	2 .....	OVER-SIZE (OS=0.25) PART. NOT SOLD SEPARATELY.
28*■		BEARING, THRUST .250S .....	2 .....	OVER-SIZE (OS=0.25) PART. NOT SOLD SEPARATELY.

# YANMAR 3TNE88 DIESEL ENGINE — GEAR HOUSING

**FIG. 2**



# YANMAR 3TNE88 DIESEL ENGINE — GEAR HOUSING

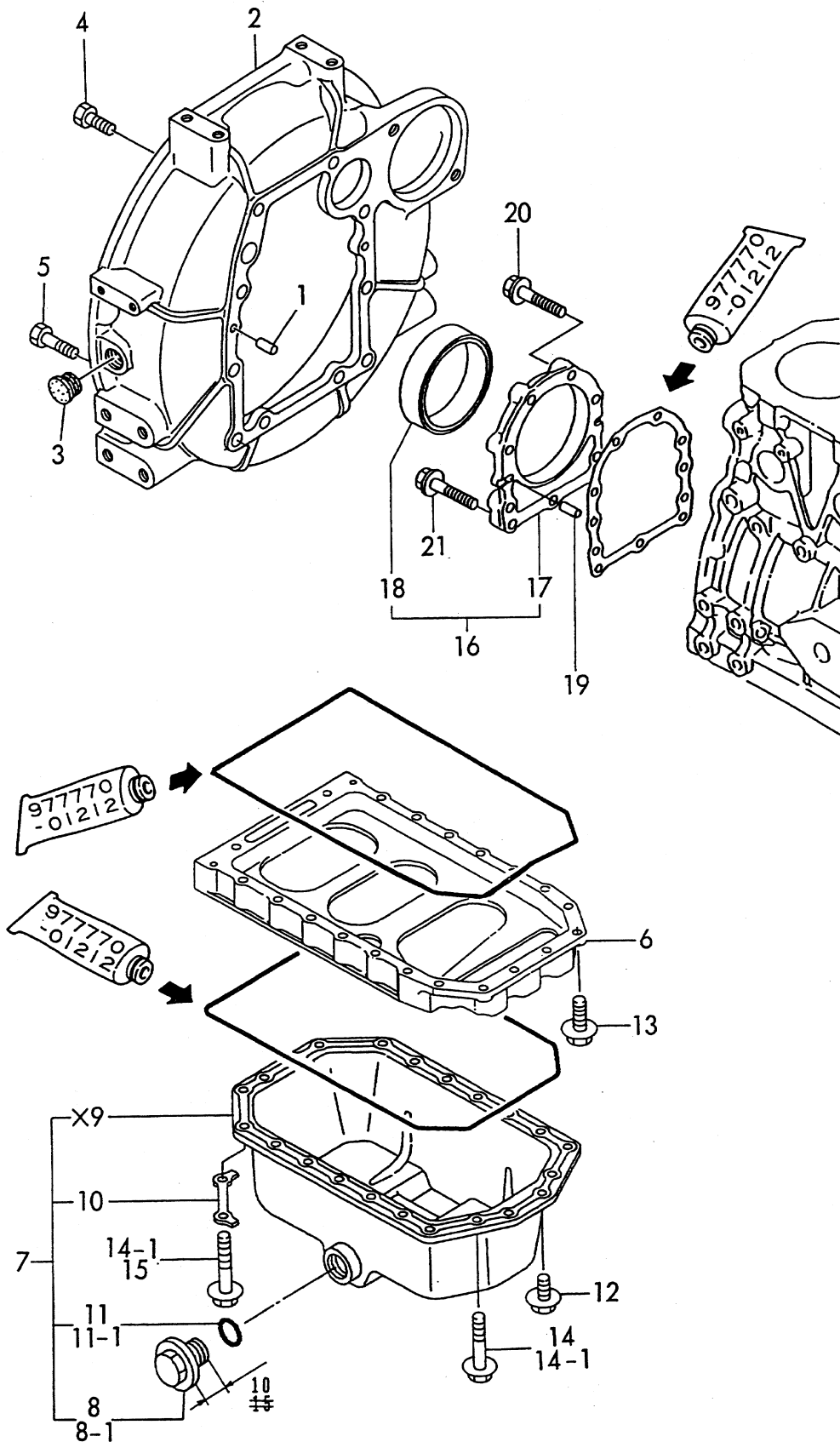
## GEAR HOUSING

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	719810-01500	HOUSING ASSY, GEAR .....	1 .....	INCLUDES ITEMS w/*
2*		HOUSING, GEARS .....	1 .....	NOT SOLD SEPARATELY.
3*	129795-01800	SEAL, OIL	1	
4	129400-01520	FLANGE, GEARS HOUSING	1	
5	121450-01560	STUD M 8X22	3	
6	124160-01751	CAP, LUB. OIL SUPPLY	1	
7	124240-01871	COVER, HO-P	1	
8	124240-01883	GASKET, (NON-ASB.) .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
9	129795-01950	PIPE, KNOCK L=18	2	
10	129150-03100	RETAINER	1	
11	121850-51960	O-RING, F.I. PUMP .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
12	24311-000160	O-RING 1A P-16.0	2	
13	24311-000320	O-RING 1A P-32.0 .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601)
14	26106-080122	BOLT M 8X12 PLATED	4	
15	26106-080162	BOLT M 8X16 PLATED	1	
16	26106-080162	BOLT M 8X16 PLATED	3	
17	26106-080202	BOLT M 8X20 PLATED	2	
18	26106-080452	BOLT M 8X45 PLATED	6	
19	26106-080552	BOLT M 8X55 PLATED	3	
20	26106-080852	BOLT M 8X85 PLATED	4	
21	26366-080002	NUT M 8	3	
22	43400-500410	SEAL WASHER 8S	4	
22.1	22190-080002	SEAL WASHER 8S	4	
23	43400-500410	SEAL WASHER 8S	1	
23.1	22190-080002	SEAL WASHER 8S	1	
24	121023-01550	COVER, BLIND	1	
25	24341-000240	O-RING 1A S-24.0	1	
26	26106-060122	BOLT M 6X12 PLATED	2	



# YANMAR 3TNE88 DIESEL ENGINE — FLYWHEEL HOUSING AND OIL SUMP

**FIG. 3**



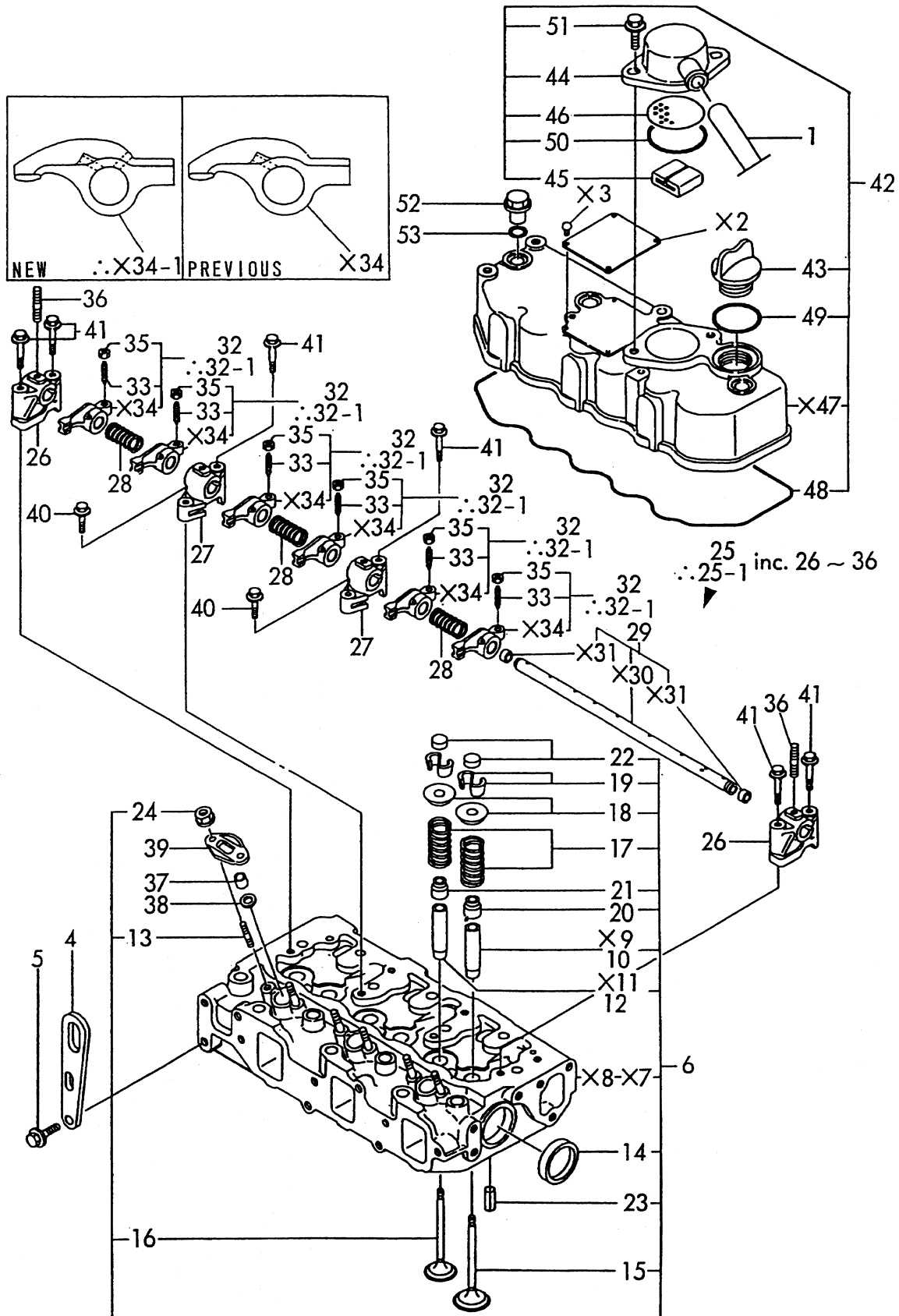
# YANMAR 3TNE88 DIESEL ENGINE — FLYWHEEL HOUSING AND OIL SUMP

## FLYWHEEL HOUSING & OIL SUMP

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129100-01580	PARALLEL PIN 8X16	2	
2	171301-01600	HOUSING, FLYWHEEL	1	
3	119620-01750	CAP, FLYWHEEL COVER	1	
4	26206-100252	BOLT M 10X25	6	
5	26206-100302	BOLT M 10X30	4	
6	129100-01730	SPACER, OIL SUMP	1	
7	129100-01770	SUMP ASSY, LUB. OIL .....	1	INCLUDES ITEMS w/*
8*	171301-01640	PLUG M22	1	
8.1*	119640-01640	DRAIN PLUG M22	1	
9*		SUMP, LUB. OIL .....	1	NOT SOLD SEPARATELY.
10*	129100-01790	SUPPORT, OIL SUMP	2	
11*	24341-000240	O-RING 1A S-24.0	1	
11.1*	22190-220002	SEAL WASHER 22S	1	
12	26106-080162	BOLT M 8X16 PLATED	4	
13	26106-080252	BOLT M 8X25 PLATED	2	
14	26106-080452	BOLT M 8X45 PLATED	16	
14.1*	26106-080452	BOLT M 8X45 PLATED	20	
15*	26106-080502	BOLT M 8X50 PLATED	4	
16	129150-01650	CASE ASSY, OIL SEAL .....	1	INCLUDES ITEMS w/#
16.1	129100-01640	CASE ASSY, OIL SEAL	1	
17#	129150-01650	CASE, OIL SEAL	1	
18#	129795-01780	SEAL, OIL	1	
19	129100-01580	PARALLEL PIN 8X16	2	
20	26106-080302	BOLT M 8X30 PLATED	6	
21	26106-080352	BOLT M 8X35 PLATED	3	

# YANMAR 3TNE88 DIESEL ENGINE — CYLINDER HEAD AND BONNET

**FIG. 4**



# YANMAR 3TNE88 DIESEL ENGINE — CYLINDER HEAD AND BONNET

## CYLINDER HEAD AND BONNET

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1■	119856-03090	HOSE	1	
2■		LABEL, MODEL .....	1	NOT SOLD SEPARATELY.
3		RIVET .....	4	NOT SOLD SEPARATELY.
4	124736-07900	LIFTER, ENGINE	2	
5	26106-080142	BOLT M 8X14 PLATED	4	
6	729001-11700	HEAD ASSY, CYLINDER .....	1	INCLUDES ITEMS w/*
7*		HEAD ASSY, CYLINDER .....	1	NOT SOLD SEPARATELY.
8*		HEAD, CYLINDER .....	1	NOT SOLD SEPARATELY.
9*		GUIDE, VALVE .....	3	NOT SOLD SEPARATELY.
10*	120130-11860	GUIDE, VALVE .....	3	REPAIR PART.
11*		GUIDE, VALVE .....	3	NOT SOLD SEPARATELY.
12*	129150-11810	GUIDE, VALVE .....	3	REPAIR PART.
13*	26216-060202	STUD M 6X20 PLATED	6	
14*	27241-400000	PLUG 40	2	
15*	129100-11100	VALVE, INTAKE	3	
16*	129100-11110	VALVE, EXHAUST	3	
17*	129795-11120	SPRING, VALVE	6	
18*	129795-11180	RETAINER, SPRING	6	
19*	103338-11190	COTTER 8	6	
19.1*	27310-080000	COTTER 8	6	
20*	121400-11340	SEAL, VALVE STEM	3	
21*	124460-11340	SEAL, VALVE STEM	3	
22*	129150-11370	CAP, VALVE	6	
23*	22351-060012	SPRING PIN 6X12	2	
24*	26366-060002	NUT M 6	6	
25*	129155-11241	SHAFT ASSY, ROCKER .....	1	INCLUDES ITEMS w/#
25.1*#	129100-11240	SHAFT ASSY, ROCKER	1	
26*#	129155-11260	SUPPORT, ROCKER ARM	2	
27*#	129155-11270	SUPPORT, ROCKER ARM	2	
28*#	129150-11280	SPRING	3	
29*#	129150-11290	SHAFT, ROCKER ARM .....	1	INCLUDES ITEMS w/+
30*#+		SHAFT .....	1	NOT SOLD SEPARATELY.
31*#+		PLUG 10 .....	2	NOT SOLD SEPARATELY.
32*#	729402-11650	ARM ASSY, ROCKER .....	6	INCLUDES ITEMS w/%
32.1*#%	129100-11650	ARM ASSY, ROCKER	6	
33*#%	129150-11230	SCREW, VALVE	6	
34*#%		ARM, ROCKER .....	6	NOT SOLD SEPARATELY.
34.1*#%		ARM, ROCKER .....	6	NOT SOLD SEPARATELY.
35*#	129150-11750	NUT M8XP1.0	6	
36*#	26226-080182	STUD M 8X18 PLATED	3	
37*	119625-11870	PROTECTOR, NOZZLE	3	
38*	119625-11880	SEAT, NOZZLE	3	
39*	119625-11900	RETAINER	3	
40	26106-080252	BOLT M 8X25 PLATED	2	
41	729132-11520	BOLT M 8X50 PLATED	6	
42	729132-11520	BONNET ASSY .....	1	INCLUDES ITEMS w/■, REPLACES 129100-11350
43■	124160-01751	CAP, LUB. OIL SUPPLY	1	
44■	129150-03020	COVER, BREATHER	1	
45■	129150-03070	BAFFLE, BREATHER	1	
46■	129150-03080	PLATE, SHELTER	1	

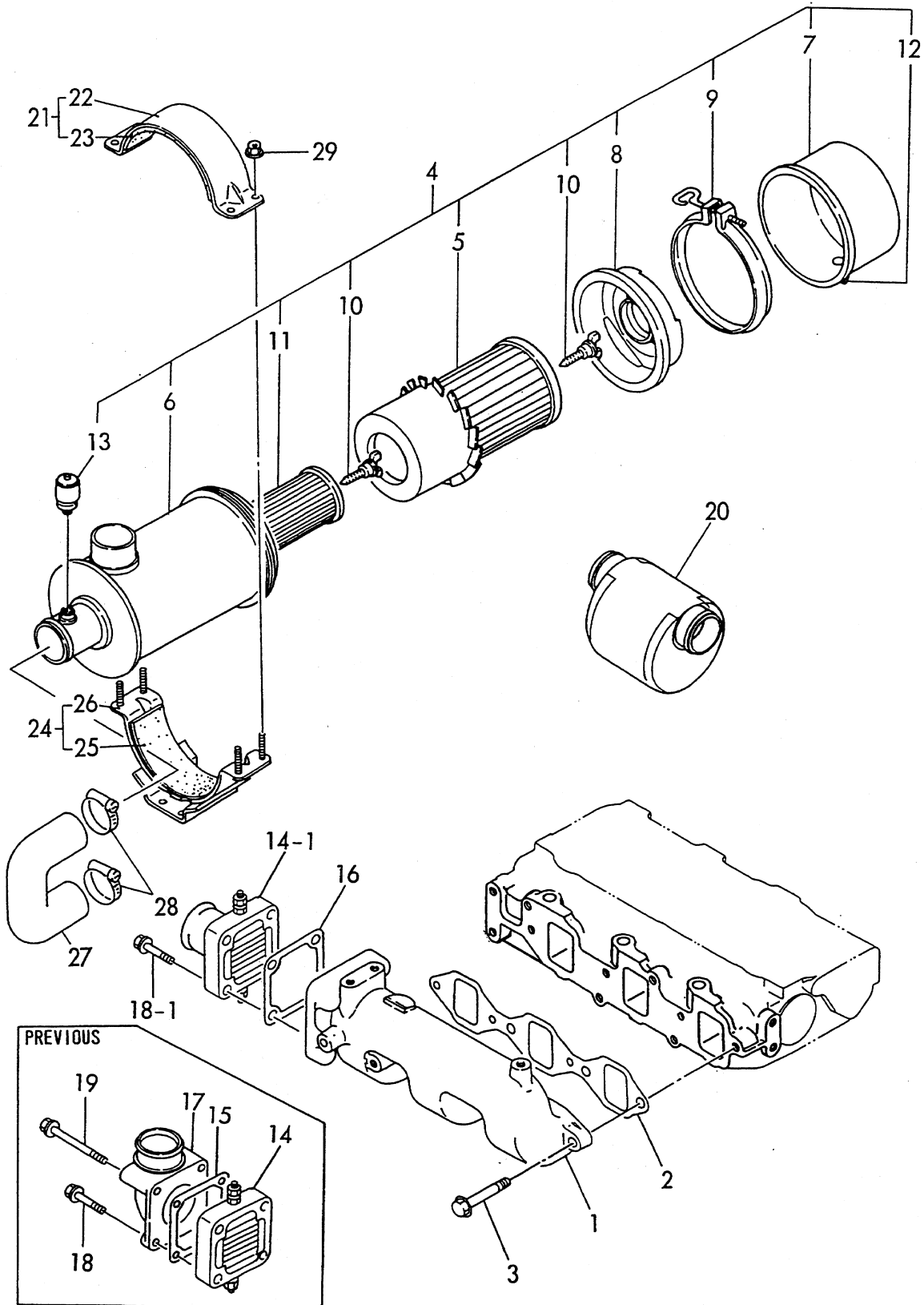
# YANMAR 3TNE88 DIESEL ENGINE — CYLINDER HEAD AND BONNET

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
47■		BONNET .....	1 .....	NOT SOLD SEPARATELY.
48■	129150-11310	GASKET, BONNET .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
49■	24311-000320	O-RING 1A P-32.0 .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
50■	24341-000500	O-RING 1A S-50.0 .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
51■	26106-080162	BOLT M 8X16 PLATED	2	
52	124160-11360	KNOT	3	
53	24311-000120	O-RING 1A P 12.0 .....	3 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).



# YANMAR 3TNE88 DIESEL ENGINE — SUCTION MANIFOLD AND AIR CLEANER

**FIG. 5**



# YANMAR 3TNE88 DIESEL ENGINE — SUCTION MANIFOLD AND AIR CLEANER

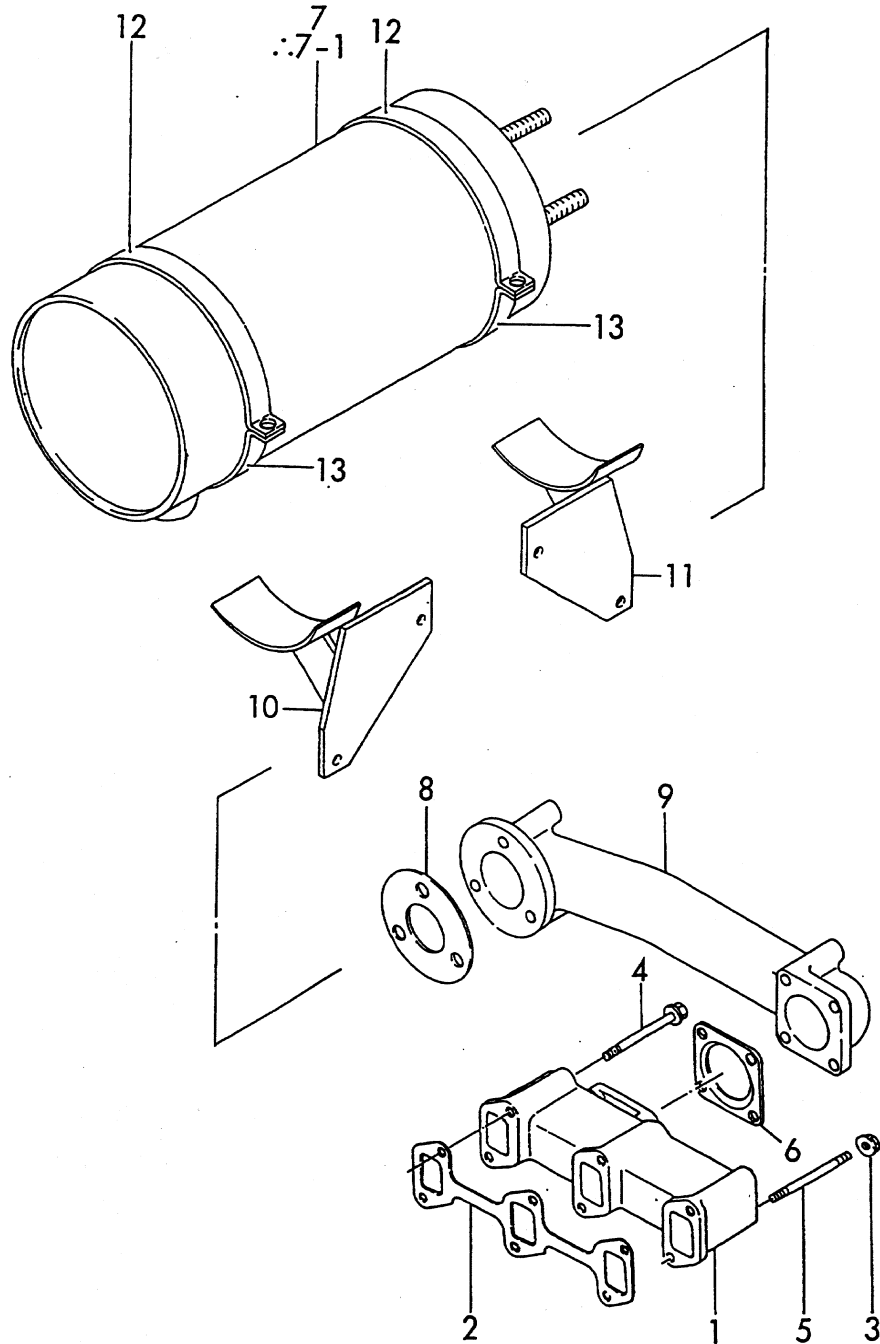
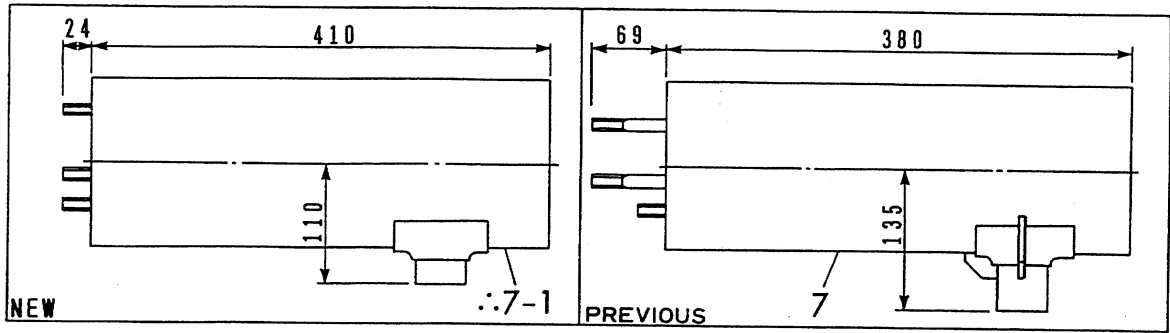
## SUCTION MANIFOLD & AIR CLEANER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129122-12100	MANIFOLD, SUCTION	1	
2	129150-12111	GASKET, (NON-ASB.) .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
3	26106-080252	BOLT M 8X25 PLATED	4	
4	121521-12500	CLEANER ASSY, AIR .....	1 .....	INCLUDES ITEMS w/*
5*	121420-12511	ELEMENT, OUTER	1	
6*	171061-12520	BODY, CLEANER	1	
7*	121422-12530	CUP, AIR CLEANER	1	
8*	121420-12540	BAFFLE	1	
9*	121420-12550	CLAMP ASSY	1	
10*	121420-12561	NUT, WING	2	
11*	121422-12570	ELEMENT, INNER	1	
12*	121422-12580	VALVE, UNLOADER	1	
13*	126650-12680	INDICATOR	1	
14	129100-77500	HEATER, AIR	1	
14.1	129120-77501	HEATER, AIR	1	
15	129100-77510	GASKET, AIR HEATER	1	
16	129150-77511	GASKET, (NON-ASB.) .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
17	171340-77520	BEND	1	
18	26106-080402	BOLT M 8X40 PLATED	2	
18.1	26106-080352	BOLT M 8X35 PLATED	4	
19	26106-080802	BOLT M 8X80 PLATED	2	
20	121855-12060	SILENCER, INLET	1	
21	121400-12540	BRACE (B) ASSY .....	1 .....	INCLUDES ITEMS w/#
22#	121400-12540	BELT B .....	1 .....	REPLACES 121400-12560
23#	1713511-2570	SEAT (B), RUBBER .....	1 .....	REPLACES 121400-12570
24	171351-12580	SUPPORT ASSY, CLEANER .....	1 .....	INCLUDES ITEMS w/+
25+	171351-12560	SUPPORT, AIR CLEANER	1	
26+	171351-12570	SEAT (B), RUBBER	1	
27	119841-12210	HOSE, SUCTION .....	1 .....	REPLACES 171351-12210
28	Y23000-060000	CRIP 60, HOSE .....	6 .....	REPLACES 23000-060000
29	26366-060002	NUT W/WASHER M 6	4	



# YANMAR 3TNE88 DIESEL ENGINE — EXHAUST MANIFOLD AND SILENCER

**FIG. 6**



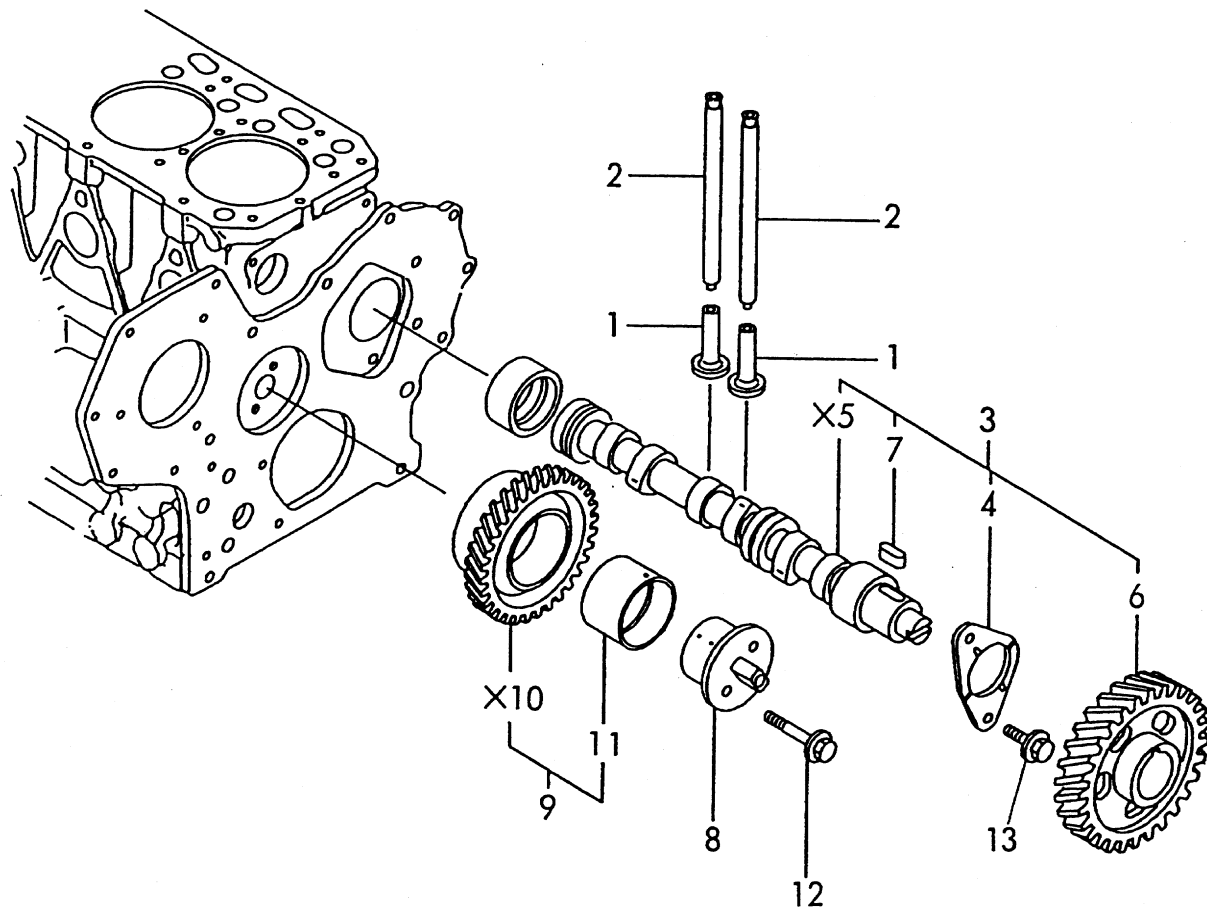
# YANMAR 3TNE88 DIESEL ENGINE — EXHAUST MANIFOLD AND SILENCER

## EXHAUST MANIFOLD AND SILENCER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129100-13110	MANIFOLD, EXHAUST	1	
2	129150-13110	GASKET, EXH. MANIFOLD .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
3	194990-22050	NUT W/WASHER 8	2	
4	26106-080802	BOLT M 8X80 PLATED	4	
5	26216-080802	STUD M 8X80 PLATED	2	
6	124701-11911	GASKET, (NON-ASB.) .....	1 .....	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
7	129131-13520	SILENCER	1	
8	103954-13200	GASKET, SILENCER	1	
8.1	103954-13201	GASKET, SILENCER	1	
9	129130-13550	PIPE, EXH. CONNECT	1	
10	129130-13650	SUPPORT (R)	1	
11	129130-13660	SUPPORT (L)	1	
12	129111-13670	BAND (UPPER)	2	
13	129111-13680	BAND (LOWER)	2	

# YANMAR 3TNE88 DIESEL ENGINE — CAMSHAFT AND DRIVE GEAR

**FIG. 7**



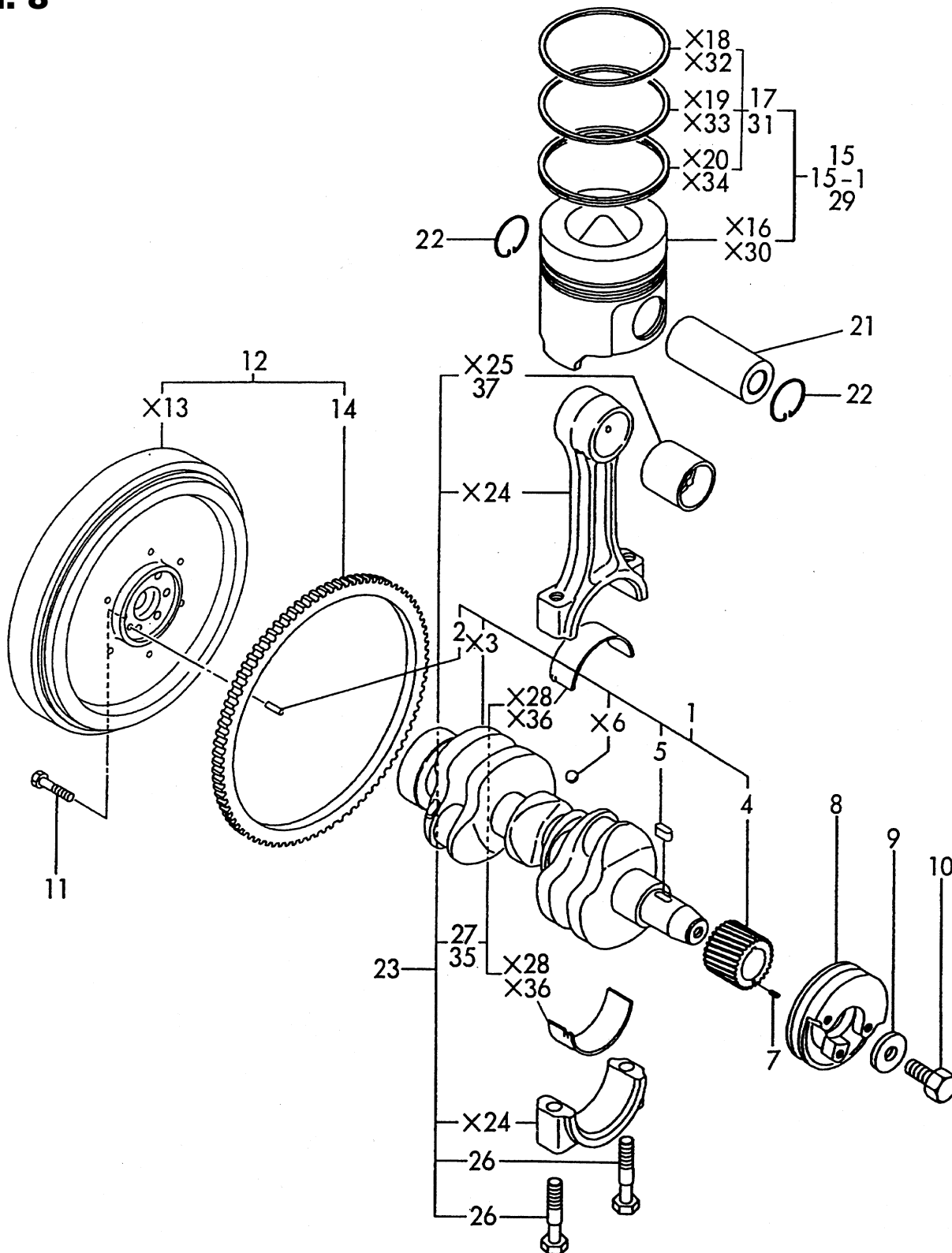
# YANMAR 3TNE88 DIESEL ENGINE — CAMSHAFT AND DRIVE GEAR

## CAMSHAFT & DRIVE GEAR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129150-14200	TAPPET	6	
2	129150-14400	ROD, PUSH	6	
3	129129-14580	CAMSHAFT ASSY .....	1	INCLUDES ITEMS w/*
4*	129150-02450	BEARING, THRUST	1	
5*		CAMSHAFT .....	1	NOT SOLD SEPARATELY.
6*	129150-14101	GEAR, CAMSHAFT	1	
7*	22512-070140	KEY 7X14	1	
8	129100-25061	SHAFT, IDLE GEAR	1	
9	129150-25101	GEAR W/BUSH .....	1	INCLUDES ITEMS w/#
10#		GEAR, IDLE .....	1	NOT SOLD SEPARATELY.
11#	129150-25061	BUSH, IDLE GEAR	1	
12	26106-080452	BOLT M 8X45 PLATED	2	
13	26106-080162	BOLT M 8X16 PLATED	2	

# YANMAR 3TNE88 DIESEL ENGINE — CRANKSHAFT AND PISTON

**FIG. 8**



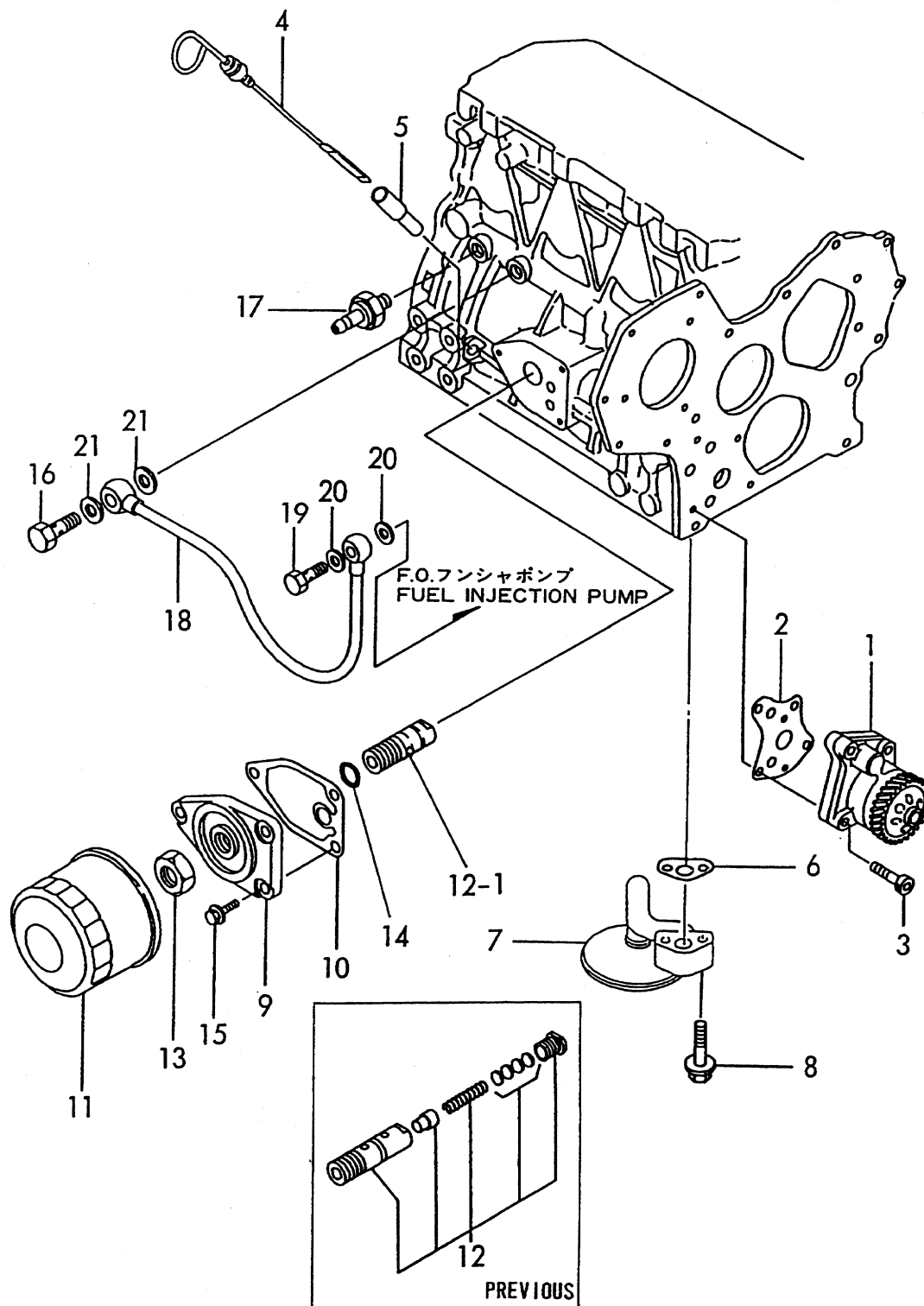
# YANMAR 3TNE88 DIESEL ENGINE — CRANKSHAFT AND PISTON

## CRANKSHAFT & PISTON

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129001-21000	CRANKSHAFT ASSY .....	1 .....	INCLUDES ITEMS w/*
2*	129100-01580	PARALLEL PIN 8X16	1	
3*		CRANKSHAFT .....	1 .....	NOT SOLD SEPARATELY.
4*	129150-21200	GEAR, CRANKSHAFT	1	
5*	22512-070140	KEY 7X14	1	
6*		BALL 1/4, STEEL .....	3 .....	NOT SOLD SEPARATELY.
7	22351-040010	SPRING PIN 4X10	1	
8	171340-21650	V-PULLEY, CRANKSHAFT	1	
9	129795-21661	WASHER	1	
10	121850-21680	BOLT, V-PULLEY	1	
11	121111-21501	BOLT, FLYWHEEL	6	
12	129128-21590	FLYWHEEL W/RING GEAR .....	1 .....	INCLUDES ITEMS w/#
13#		FLYWHEEL .....	1 .....	NOT SOLD SEPARATELY.
14#	119865-21600	GEAR, RING	1	
15	129001-22080	PISTON ASSY .....	3 .....	INCLUDES ITEMS w/+
15.1+	129001-22081	PISTON W/RINGS .....	3 .....	CHANGING THE MATERIAL.
16+		PISTON .....	3 .....	NOT SOLD SEPARATELY.
17+	129001-22500	RING SET, PISTON .....	3 .....	INCLUDES ITEMS w/%
18+%		RING, TOP .....	3 .....	NOT SOLD SEPARATELY.
19+%		RING, 2 <sup>ND</sup> .....	3 .....	NOT SOLD SEPARATELY.
20+%		RING, OIL .....	3 .....	NOT SOLD SEPARATELY.
21	129202-22300	PIN, PISTON	3	
22	22252-000260	CIRCLIP 26	6	
23	729402-23100	ROD ASSY, CONNECTING .....	3 .....	INCLUDES ITEMS 24 THRU 28
24		ROD, CONNECTING .....	3 .....	NOT SOLD SEPARATELY.
25		BUSH, PISTON PIN .....	3 .....	NOT SOLD SEPARATELY.
26	121550-23200	BOLT, CONNECTING ROD	6	
27	129150-23600	BEARING, CRANKPIN	3	
28		BEARING, CRANKPIN .....	6 .....	NOT SOLD SEPARATELY.
29	129001-22900	PISTON W/RING OS=.25 .....	3 .....	OVER-SIZE (OS=0.25) PART.
30		PISTON OS=0.25 .....	3 .....	INCLUDES ITEMS 30 THRU 34
31	129001-22950	RING SET OS=0.25 .....	3 .....	OVER-SIZE (OS=0.25) PART.
32■		RING, TOP OS=0.25 .....	3 .....	INCLUDES ITEMS w/■
33■		RING, 2 <sup>ND</sup> OS=0.25 .....	3 .....	OVER-SIZE (OS=0.25) PART.
34■		RING, OIL OS=0.25 .....	3 .....	OVER-SIZE (OS=0.25) PART.
35	129150-23610	BEARING, PIN US=0.25 .....	3 .....	NOT SOLD SEPARATELY.
36		BEARING, PIN US=0.25 .....	6 .....	UNDER-SIZE (US=0.25) PART.
37	129100-23910	BUSH, PISTON PIN .....	3 .....	UNDER-SIZE (US=0.25) PART.
				NOT SOLD SEPARATELY.
				REPAIR PART.

# YANMAR 3TNE88 DIESEL ENGINE — LUB. OIL SYSTEM

**FIG. 9**



# YANMAR 3TNE88 DIESEL ENGINE — LUB. OIL SYSTEM

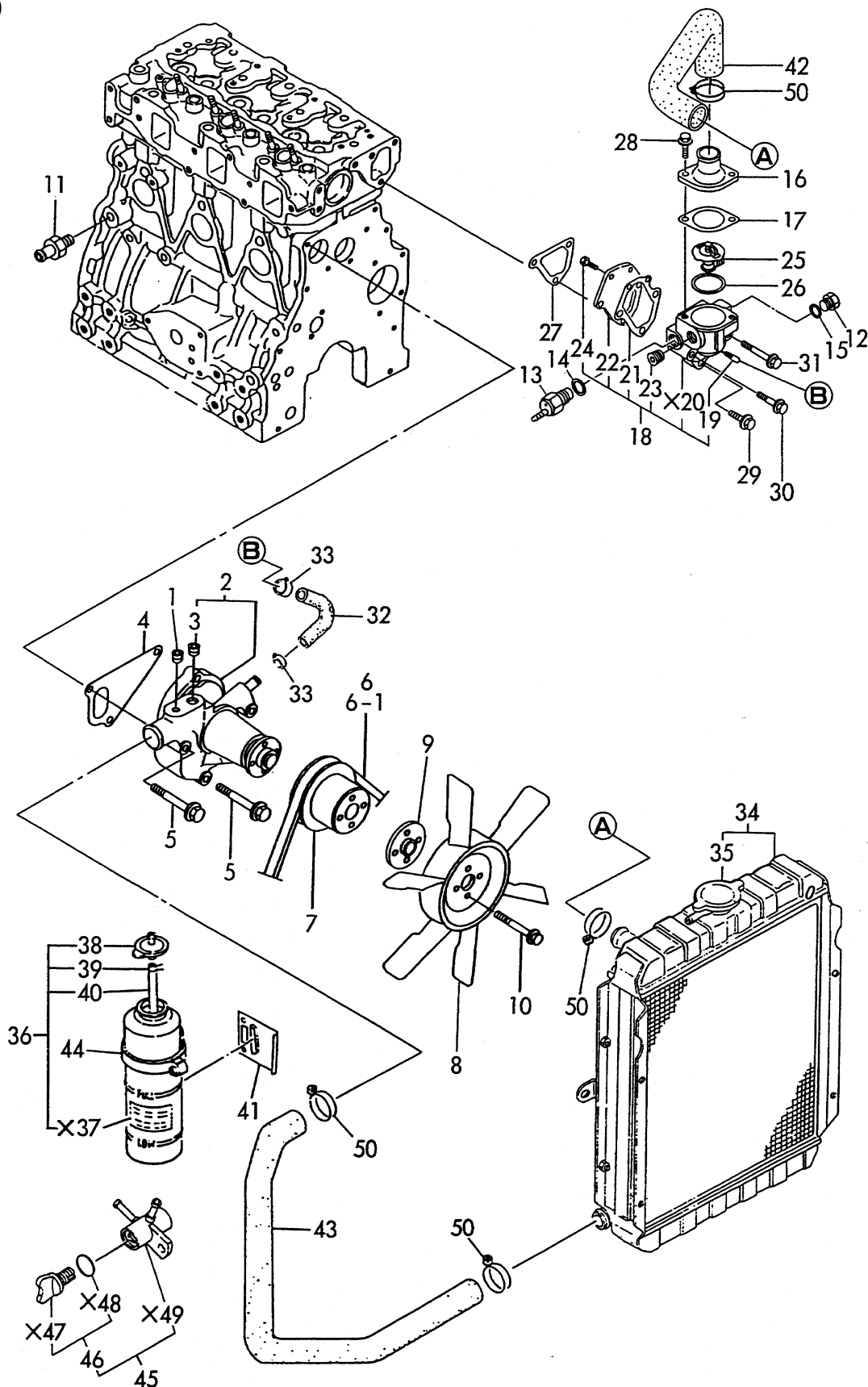
## LUB. OIL SYSTEM

NO	PART NO	PART NAME	QTY.	REMARKS
1	129150-32000	PUMP ASSY, LUB. OIL .....	1	INCLUDES ITEMS 1.1 THRU 1L
1.1	129001-32001	PUMP ASSY, LUB. OIL	1	
1A		BODY, LUB. OIL PUMP .....	1	NOT SOLD SEPARATELY.
1A.1		BODY .....	1	NOT SOLD SEPARATELY.
1B		PIN 4X8 .....	2	NOT SOLD SEPARATELY.
1B.1		SPRING PIN 4X8 .....	2	NOT SOLD SEPARATELY.
1C		COVER .....	1	NOT SOLD SEPARATELY.
1C.1		COVER .....	1	NOT SOLD SEPARATELY.
1D		ROTOR ASSY .....	1	NOT SOLD SEPARATELY.
1D.1		ROTOR ASSY .....	1	NOT SOLD SEPARATELY.
1E		ROTOR, INNER .....	1	NOT SOLD SEPARATELY.
1F		SHAFT, INNER ROTOR .....	1	NOT SOLD SEPARATELY.
1F.1		SHAFT, INNER ROTOR .....	1	NOT SOLD SEPARATELY.
1G		ROTOR, OUTER .....	1	NOT SOLD SEPARATELY.
1H		PIN .....	1	NOT SOLD SEPARATELY.
1I		GEAR, LUB. OIL PUMP .....	1	NOT SOLD SEPARATELY.
1J		VALVE, RELIEF .....	1	NOT SOLD SEPARATELY.
1K		SPRING .....	1	NOT SOLD SEPARATELY.
1L		PLUG .....	1	NOT SOLD SEPARATELY.
2	129150-32020	GASKET, L.O. PUMP .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
3	26450-060252	BOLT M 6X25	4	
4	171420-34820	DIPSTICK, LUB. OIL	1	
5	129468-34810	GUIDE, DIPSTICK .....	1	REPLACES 121520-34810
6	129150-35041	GASKET, (NON-ASB.) .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
7	129100-35301	PIPE ASSY, OIL INLET	1	
8	26106-080352	BOLT M 8X35 PLATED	2	
9	129150-35101	BRACKET, STRAINER	1	
10	129150-35111	GASKET, (NON-ASB.) .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
11	129150-35151	FILTER 80X80L	1	
12	119865-35300	VALVE ASSY, OIL PRESS	1	
12.1	129001-35300	BOLT, LUB. O. STRAINER	1	
12A		BODY .....	1	NOT SOLD SEPARATELY.
12B		SPRING .....	1	NOT SOLD SEPARATELY.
12C		RETAINER .....	1	NOT SOLD SEPARATELY.
12D		SHIM SET .....	1	NOT SOLD SEPARATELY.
12E		SHIMT=0.2 .....	2	NOT SOLD SEPARATELY.
12F		SHIMT=0.3 .....	2	NOT SOLD SEPARATELY.
13	129150-35350	NUT	1	
14	24311-000160	O-RING 1A P-16.0	1	
15	26106-080202	BOLT M 8X20 PLATED	3	
16	124160-39140	BOLT 10, PIPE JOINT	1	
17	124160-39450	SWITCH, OIL PRESSURE	1	
18	129150-39450	PIPE ASSY, LUB. OIL .....	1	INCLUDES ITEMS w/*
18A*		JOINT .....	1	NOT SOLD SEPARATELY.
18B*		JOINT 10 .....	1	NOT SOLD SEPARATELY.
18C*		PIPE, LUB. OIL .....	1	NOT SOLD SEPARATELY.
19	124550-59820	BOLT 8, PIPE JOINT	1	
20	23414-080000	GASKET 8, ROUND	2	
21	23414-100000	GASKET 10, ROUND	2	



# YANMAR 3TNE88 DIESEL ENGINE — COOLING WATER SYSTEM

FIG. 10



# YANMAR 3TNE88 DIESEL ENGINE — COOLING WATER SYSTEM

## COOLING WATER SYSTEM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	121850-11860	PLUG PT 1/4	1	
2	129100-42002	PUMP, C.W. (NON-ASB.) .....	1	INCLUDES ITEMS w/*
2A*		BODY, C.W. PUMP .....	1	NOT SOLD SEPARATELY.
2B*		GASKET, (NON-ASB.) .....	1	NOT SOLD SEPARATELY.
2C*		PLATE .....	1	NOT SOLD SEPARATELY.
2D*		IMPELLER .....	1	NOT SOLD SEPARATELY.
2E*		BEARING .....	1	NOT SOLD SEPARATELY.
2E.1*		BEARING .....	1	NOT SOLD SEPARATELY.
2F*		SEAT, PULLEY .....	1	NOT SOLD SEPARATELY.
2G*		SEAL, MECHANICAL .....	1	NOT SOLD SEPARATELY.
2H*		UNION, C.W. PUMP .....	1	NOT SOLD SEPARATELY.
2I*		SCREW .....	3	NOT SOLD SEPARATELY.
3*	23871-030000	PLUG PT 3/8, SCREW	1	
4	129100-42020	GASKET, C.W. PUMP .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
5	26106-080602	BOLT M 8X60 PLATED	3	
6	124732-42290	V-BELT (A-37)	1	
6.1	124722-42290	V-BELT	1	
7	129403-42380	V-PULLEY (D=110)	1	
8	129354-44740	FAN, COOLING	1	
9	129350-44760	SPACER	1	
10	26014-060252	BOLT M 6X25	4	
11	121550-49111	JOINT PT 1/4	1	
12	121450-42450	PLUG M16	1	
13	121250-44901	SWITCH, THERMO (110° C)	1	
14	124465-44950	GASKET 16 .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
15	124465-44950	GASKET 16 .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
16	129350-49530	COVER, THERMOSTAT	1	
17	129795-49551	GASKET, (NON-ASB.) .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
18	129100-49800	CASE ASSY, THERMOSTAT	1	INCLUDES ITEMS w/#
19#	124770-11770	JOINT PT 1/8	1	
20#		CASE, THERMOSTAT .....	1	NOT SOLD SEPARATELY.
21#	129100-49820	GASKET, COVER	1	
22#	129100-49830	COVER, THERMOSTAT CASE	1	
23#	23871-030000	PLUG PT 3/8, SCREW	1	
24#	26116-060162	BOLT M 6X16 PLATED	2	
25	129155-49800	THERMOSTAT	1	
26	129150-49811	GASKET, (NON-ASB.) .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
27	129100-49840	GASKET, THERMO. CASE .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
28	26106-080202	BOLT M 8X20 PLATED	2	
29	26106-080252	BOLT M 8X25 PLATED	1	
30	26106-080502	BOLT M 8X50 PLATED	1	

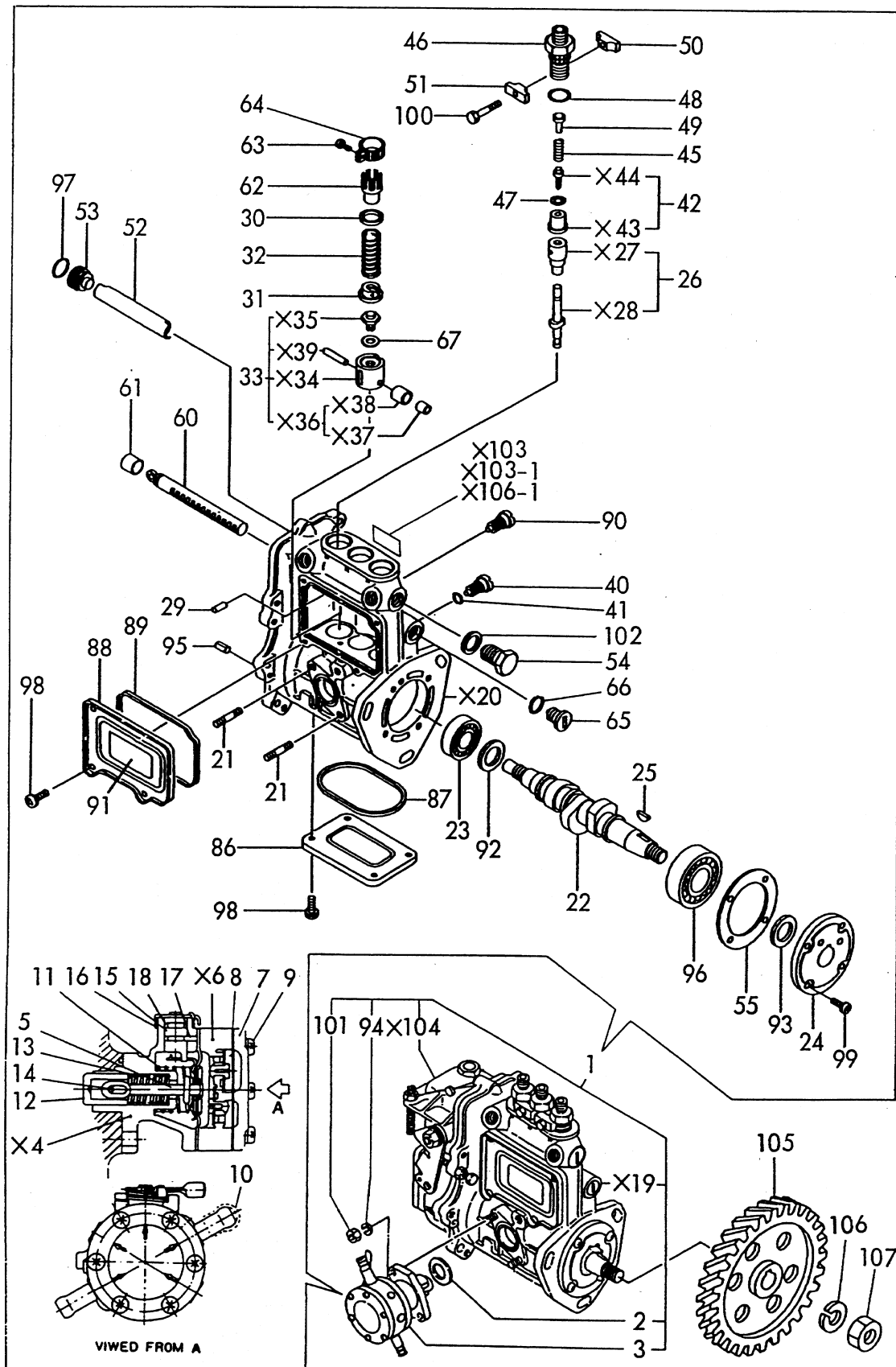
# YANMAR 3TNE88 DIESEL ENGINE — COOLING WATER SYSTEM

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
31	26106-080602	BOLT M 8X60 PLATED	1	
32	129100-49050	PIPE, C.W. (BY-PASS)	1	
32.1	129132-49050	PIPE, COOLING WATER	1	
33	23000-016000	CLAMP 16	2	
34	171440-44500	RADIATOR .....	1	INCLUDES ITEM 35
35	123682-44210	CAP	1	
36	124450-44510	SUB-TANK ASSY .....	1	INCLUDES ITEMS w/+
37+		BODY .....	1	NOT SOLD SEPARATELY.
38+	124450-44530	CAP	1	
39+	124450-44560	CLAMP	1	
40+	23061-070230	PIPE 7X230	1	
41	121256-44600	BRACKET, SUB-TANK	1	
42	171301-49010	PIPE (A), C. WATER	1	
43	171301-49020	PIPE (B), C. WATER	1	
44	124450-44550	CLAMP, SUB-TANK	1	
45	129150-49100	COCK ASSY, 3-WAY .....	1	INCLUDES ITEMS w/%
46%	129150-49080	COCK, DRAIN .....	1	INCLUDES ITEMS w/■
47%■		COCK, DRAIN .....	1	NOT SOLD SEPARATELY.
48%■		GASKET .....	1	NOT SOLD SEPARATELY.
49%		BODY, 3-WAY COCK .....	1	NOT SOLD SEPARATELY.
50	23010-038000	CLAMP 38	4	



# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION PUMP

**FIG. 11**



# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION PUMP

## FUEL INJECTION PUMP

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	729130-51350	PUMP ASSY, F.I. PUMP .....	1 .....	GOVERNOR ASSY (FIG.#12) IS INCORPORATED IN THIS FOP CMP (REF.#1) INCLUDES ITEMS 2 THRU 102
2	129155-52050	GASKET	1	
3	129100-52100	PUMP ASSY, FUEL FEED .....	1 .....	INCLUDES ITEMS 4 THRU 18
4		BODY .....	1 .....	NOT SOLD SEPARATELY.
5	129158-52020	DIAPHRAGM	1	
6		BODY, TOP .....	1 .....	NOT SOLD SEPARATELY.
7	129158-52060	COVER	1	
8	129158-52070	GASKET	1	
9	129158-52080	SCREW, CROSS	6	
10	129158-52090	CAP	2	
11	129158-52160	SPRING	1	
12	129158-52250	TAPPET	1	
13	129158-52260	SPRING	1	
14	129158-52270	PIN, TAPPET	1	
15	129158-52350	LEVER, PRIMING	1	
16	129158-52360	SPRING, RETURN	1	
17	129158-52370	PIN, PRIMING LEVER	1	
18	129158-52380	O-RING, PRIMING LEVER	1	
19		PUMP ASSY, F. INJECT .....	1 .....	NOT SOLD SEPARATELY.
20		BODY, FUEL I. PUMP .....	1 .....	NOT SOLD SEPARATELY.
21	129155-51020	STUD, FEED PUMP	2	
22	119810-51040	CAMSHAFT	1	
23	129155-51050	BALL BEARING, THRUST	1	
24	129155-51060	RETAINER, BEARING	1	
25	122710-51090	KEY	1	
26	129506-51100	PLUNGER W/BARREL .....	3 .....	INCLUDES ITEMS w/*
27*		BARREL .....	3 .....	NOT SOLD SEPARATELY.
28*		PLUNGER .....	3 .....	NOT SOLD SEPARATELY.
29	129155-51140	PIN, BARREL LOCKING	3	
30	174307-51170	RETAINER A	3	
31	129155-51180	SPRING SHOE, PLUNGER	3	
32	124950-51190	SPRING, PLUNGER	3	
33	129155-51200	TAPPET ASSY .....	3 .....	INCLUDES ITEMS w/#
34#		GUIDE, ROLLER .....	3 .....	NOT SOLD SEPARATELY.
35#		BOLT, ADJUSTING .....	3 .....	NOT SOLD SEPARATELY.
36#		ROLLER ASSY .....	3 .....	NOT SOLD SEPARATELY.
37#	111100-51210	ROLLER, INNER .....	3 .....	NOT SOLD SEPARATELY.
38#	111100-51220	ROLLER, OUTER .....	3 .....	NOT SOLD SEPARATELY.
39#	174100-54120	PIN, ROLLER .....	3 .....	NOT SOLD SEPARATELY.
40	129155-51270	LOCKING, TAPPET	3	
41	129155-51280	O-RING S6	3	
42	129505-51300	VALVE W/SEAT, DELIV. ....	3 .....	INCLUDES ITEMS w/+
43+		SEAT .....	3 .....	NOT SOLD SEPARATELY.
44+		VALVE, DELIVERY .....	3 .....	NOT SOLD SEPARATELY.
45	129155-51320	SPRING, DELIVERY VALVE	3	
46	129155-51340	GUARD, DELIVERY VALVE	3	
47	124550-51350	GASKET, DELIVERY	3	
48	124550-51370	O-RING, DELIVERY	3	
49	129155-51370	STOPPER, VALVE	3	
50	129155-51380	LOCKING (A)	2	
51	129155-51390	LOCKING (B)	2	
52	129155-51400	DEFLECTOR	1	
53	129155-51410	CHECK BOLT, DEFLECTOR	1	
54	129155-51420	PLUG (M16)	1	

# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION PUMP

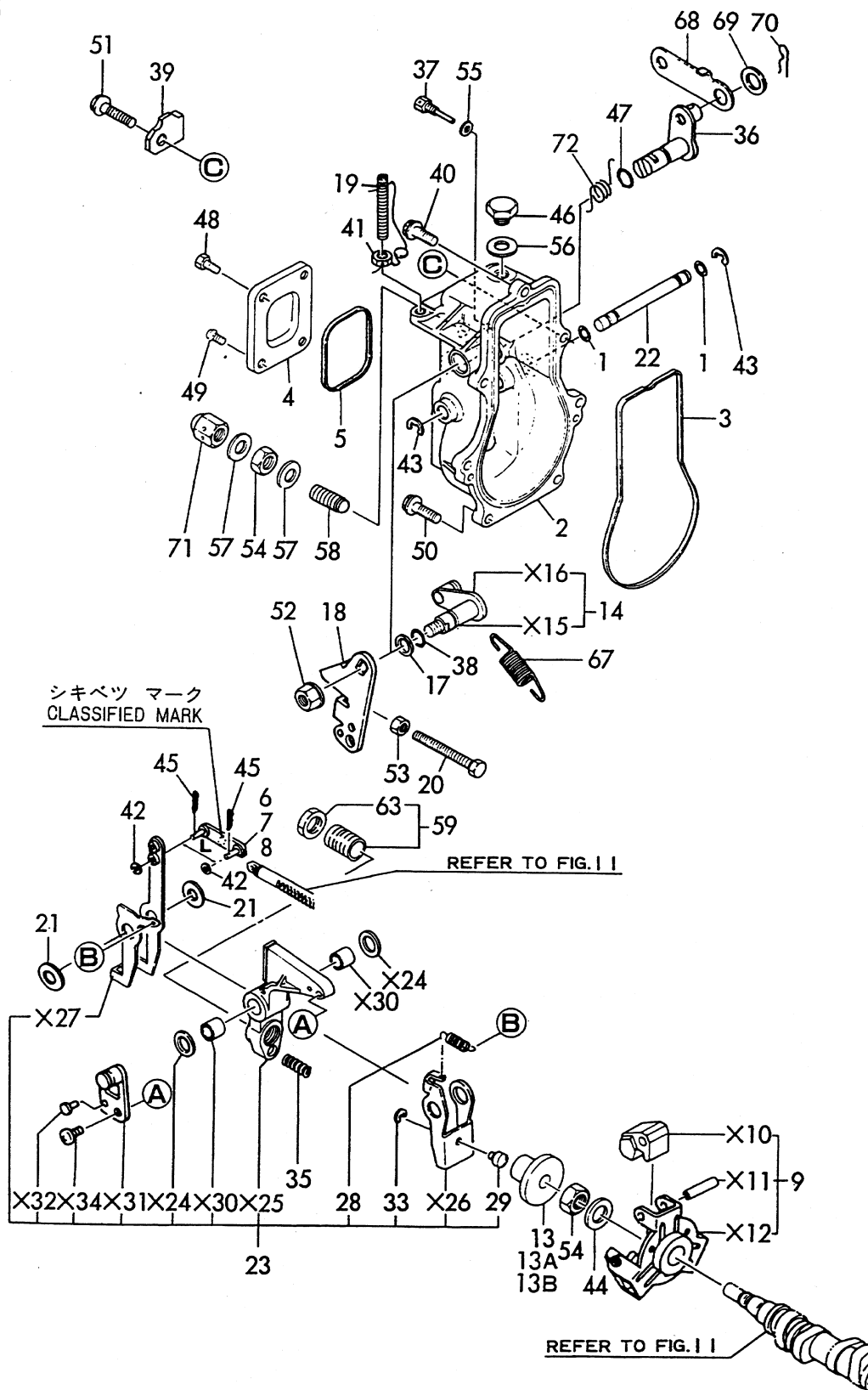
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
55	129155-51450	SHIM SET, ADJUSTING .....	1 .....	INCLUDES ITEMS w/■
56■		PACKING T=0.5 .....	1 .....	NOT SOLD SEPARATELY.
57■		PACKING T=0.4 .....	1 .....	NOT SOLD SEPARATELY.
58■		PACKING T=0.3 .....	1 .....	NOT SOLD SEPARATELY.
59■		PACKING T=0.15 .....	1 .....	NOT SOLD SEPARATELY.
60	129155-51500	RACK, CONTROL	1	
61	129155-51521	BUSH, RACK	1	
62	129155-51550	PINION, CONTROL	3	
63	122117-51560	SCREW, PINION	3	
64	174307-51560	PINION	3	
65	129155-51570	PLUG (M12)	1	
66	129155-51580	O-RING	1	
67	129155-51600	SHIM PACK .....	3 .....	INCLUDES ITEMS 68 THRU 85
68		SHIM T=1.0 .....	3 .....	NOT SOLD SEPARATELY.
69		SHIM T=1.1 .....	3 .....	NOT SOLD SEPARATELY.
70		SHIM T=1.2 .....	3 .....	NOT SOLD SEPARATELY.
71		SHIM T=1.3 .....	3 .....	NOT SOLD SEPARATELY.
72		SHIM T=1.4 .....	3 .....	NOT SOLD SEPARATELY.
73		SHIM T=1.5 .....	3 .....	NOT SOLD SEPARATELY.
74		SHIM T=1.6 .....	3 .....	NOT SOLD SEPARATELY.
75		SHIM T=1.05 .....	3 .....	NOT SOLD SEPARATELY.
76		SHIM T=1.15 .....	3 .....	NOT SOLD SEPARATELY.
77		SHIM T=1.25 .....	3 .....	NOT SOLD SEPARATELY.
78		SHIM T=1.35 .....	3 .....	NOT SOLD SEPARATELY.
79		SHIM T=1.45 .....	3 .....	NOT SOLD SEPARATELY.
80		SHIM T=1.55 .....	3 .....	NOT SOLD SEPARATELY.
81		SHIM T=1.65 .....	3 .....	NOT SOLD SEPARATELY.
82		SHIM T=0.8 .....	3 .....	NOT SOLD SEPARATELY.
83		SHIM T=0.85 .....	3 .....	NOT SOLD SEPARATELY.
84		SHIM T=0.9 .....	3 .....	NOT SOLD SEPARATELY.
85		SHIM T=0.95 .....	3 .....	NOT SOLD SEPARATELY.
86	129155-51700	COVER, LOWER	1	
87	129155-51710	GASKET, LOWER COVER	1	
88	129155-51750	COVER, SIDE	1	
89	129155-51760	GASKET, SIDE COVER	1	
90	129155-51790	LOCKING, RACK	1	
91	129156-51910	LABEL, CAUTION	1	
92	129155-51930	SPACER T=3.25	1	
93	129155-51940	SPACER T=1.5	1	
94	22217-060000	SPRING WASHER 6	2	
95	22351-050010	SPRING PIN 5X10	2	
96	24101-063034	BALL BEARING	1	
97	24341-000160	O-RING 1A S-16.0	1	
98	26022-050102	SCREW M 5X10	8	
99	26022-060162	SCREW M 6X16	4	
100	26116-050302	BOLT M 5X30 PLATED	2	
101	26716-060002	NUT M 6	2	
102	22190-160002	SEAL WASHER 16S	1	
103		LABEL (729130-51360) .....	1 .....	NOT SOLD SEPARATELY.
103.1		LABEL, MODEL .....	1 .....	NOT SOLD SEPARATELY.
104		GOVERNOR ASSY .....	1 .....	NOT SOLD SEPARATELY.
105	129150-25900	GEAR, FUEL INJECTION PUMP	1	
106	22217-120000	WASHER 12, SPRING	1	
107	26716-120002	NUT M12	1	

20 horizontal lines for notes.



# YANMAR 3TNE88 DIESEL ENGINE — GOVERNOR

**FIG. 12**



# YANMAR 3TNE88 DIESEL ENGINE — GOVERNOR

## GOVERNOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129155-51280	O-RING X6	2	
2	129155-61012	CASE, GOVERNOR .....	1	INCLUDES ITEMS 1 THRU 57
3	129155-61050	GASKET, GOV. CASE	1	
4	129155-61060	COVER, GOVERNOR CASE	1	
5	129155-61070	GASKET, CASE COVER	1	
6	129155-61120	LINK L=30 (MARK 0) .....	1	SELECTIVE PART. CERTAIN THE SIZE OF "L", THEN PLACE YOUR ORDER. (REFER TO ILLUSTRATION).
7	129155-61130	LINK L=31 (MARK 1) .....	1	SELECTIVE PART. CERTAIN THE SIZE OF "L", THEN PLACE YOUR ORDER. (REFER TO ILLUSTRATION).
8	129155-61140	LINK L=30.5 (MARK 05) .....	1	SELECTIVE PART. CERTAIN THE SIZE OF "L", THEN PLACE YOUR ORDER. (REFER TO ILLUSTRATION).
9	129155-61201	WEIGHT ASSY, GOV.	1	INCLUDES ITEMS w/*
10*		WEIGHT .....	3	NOT SOLD SEPARATELY.
11*		PIN, GOVERNOR WEIGHT .....	3	NOT SOLD SEPARATELY.
12*		SUPPORT, GOV. WEIGHT .....	1	NOT SOLD SEPARATELY.
13	129155-61341	SLEEVE .....	1	SELECTIVE PART.
13A	129155-61350	SLEEVE .....	1	SELECTIVE PART.
13B	129155-61360	SLEEVE	1	
14	129100-61400	SHAFT ASSY, CONTROL .....	1	INCLUDES ITEMS w/#
15#		SHAFT .....	1	NOT SOLD SEPARATELY.
16#		HOOK .....	1	NOT SOLD SEPARATELY.
17	129155-61430	SPACER, SHAFT	1	
18	129100-61440	LEVER, CONTROL	1	
19	129155-61450	BOLT, REVOL. LIMIT	1	
20	129155-61460	BOLT, IDLE LIMIT	1	
21	129155-61480	SPACER ASSY	2	
22	129155-61490	SHAFT, GOV. LEVER	1	
23	119843-61500	LEVER ASSY, GOVERNOR .....	1	INCLUDES ITEMS w/+
24+		SHIM SET .....	2	NOT SOLD SEPARATELY.
25+		LEVER .....	1	NOT SOLD SEPARATELY.
26+		LEVER A, GOVERNOR .....	1	NOT SOLD SEPARATELY.
27+		LEVER B, GOVERNOR .....	1	NOT SOLD SEPARATELY.
28+	119843-61540	SPRING	1	
29+	129155-61540	SHIFTER	1	
30+		BUSH .....	2	NOT SOLD SEPARATELY.
31+		HOOK, TENSION LEVER .....	1	NOT SOLD SEPARATELY.
32+		PIN .....	1	NOT SOLD SEPARATELY.
33+	22272-000040	CIRCLIP E-4	1	
34+		SCREW M 6X12 .....	1	NOT SOLD SEPARATELY.
35	129100-61650	SPRING, FUEL CONTROL	1	
36	129129-61801	LEVER ASSY, STOP	1	
37	129155-61810	PIN, STOP LEVER	1	
38	129155-61830	O-RING S10	1	
39	129116-61890	SUPPORT, STOP LEVER	1	
40	129155-61950	BOLT, WASHER BASED	1	
41	124550-66370	LOCK NUT M 6	1	
42	22117-040000	WASHER 4	1	
43	22272-000060	CIRCLIP E-6	2	
44	22287-120000	WASHER 12	1	
45	22372-040000	SNAP PIN 4	2	
46	23887-100002	PLUG 10	1	

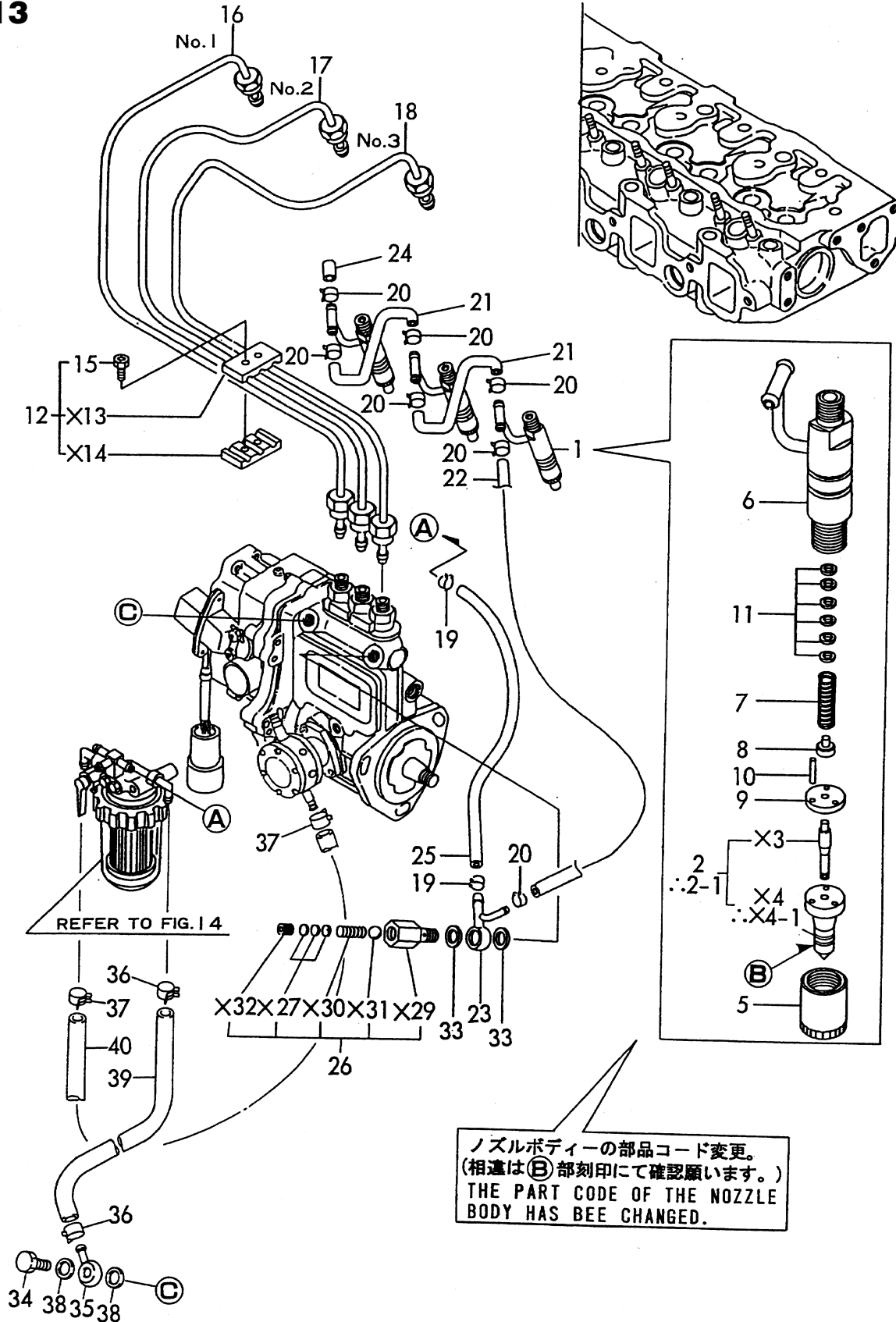
# YANMAR 3TNE88 DIESEL ENGINE — GOVERNOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
47	24311-240100	O-RING 1A P-10A	1	
48	26022-050102	SCREW M 5X10	2	
49	26023-050102	SCREW M 5X10	2	
50	26106-060202	BOLT M 6X20 PLATED	5	
51	26106-060252	BOLT M 6X25 PLATED	1	
52	26366-080002	NUT M 8	1	
52.1	129255-61410	NUT	1	
53	26756-060002	LOCK NUT M 6 PLATED	1	
54	26776-120002	LOCK NUT M12 PLATED	2	
55	22190-060002	SEAL WASHER 6	1	
56	22190-100002	SEAL WASHER 10	1	
57	22190-120002	SEAL WASHER 12	2	
58	129155-61470	BOLT, FUEL CONTROL	1	
59	129132-61550	ANGLEICH ASSY .....	1	INCLUDES ITEMS w/■
59.1	171353-61550	ANGLEICH ASSY	1	
60		CASE, ANGLEICH .....	1	NOT SOLD SEPARATELY.
61		SHIFTER, ANGLEICH .....	1	NOT SOLD SEPARATELY.
62		SPRING, ANGLEICH .....	1	NOT SOLD SEPARATELY.
63■	129155-61590	NUT	1	
64		SHIM SET .....	1	NOT SOLD SEPARATELY.
65		WASHER 5 .....	1	NOT SOLD SEPARATELY.
66		CIRCLIP E- 4 .....	1	NOT SOLD SEPARATELY.
67	129489-61700	SPRING, GOVERNOR	1	
67.1	171353-61710	SPRING, GOVERNOR	1	
68	129129-66860	LINK, SOLENOID	1	
69	22117-080000	WASHER 8	1	
70	22372-080000	SNAP PIN (JASO 8)	1	
71	26687-120002	CAP NUT M12	1	
72	129255-61420	SPRING	1	



# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION VALVE

**FIG. 13**



# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION VALVE

## FUEL INJECTION VALVE

NO	PART NO	PART NAME	QTY.	REMARKS
1	729500-53100	VALVE ASSY, FUEL INJECT .....	1 .....	INCLUDES ITEMS 1 THRU 11F
1.1	729503-53100	VALVE ASSY, FUEL INJECT	1	
2	129500-53000	NOZZLE ASSY, FUEL INJECT .....	3 .....	INCLUDES ITEMS w/*
2.1*	129503-53000	NOZZLE ASSY, FUEL INJECT	3	
3*		VALVE .....	3 .....	NOT SOLD SEPARATELY.
4*		BODY, NOZZLE .....	3 .....	NOT SOLD SEPARATELY.
4.1*	129503-53040	BODY, NOZZLE	3	
5	114250-53080	NUT, NOZZLE CASE	3	
6	129100-53100	HOLDER ASSY, NOZZLE .....	3 .....	INCLUDES ITEMS 6A & 6B
6A		BODY, NOZZLE H OLDER .....	3 .....	NOT SOLD SEPARATELY.
6B		PIPE, FUEL RETURN .....	3 .....	NOT SOLD SEPARATELY.
7	114250-53120	SPRING, NOZZLE	3	
8	114250-53130	SEAT, NOZZLE SPRING	3	
9	114250-53140	PLATE, STOP	3	
10	114250-53210	PIN	6	
11	114250-53400	SHIM PACK .....	3 .....	INCLUDES ITEMS 11A THRU 11F
11A		SHIM O.4T .....	3 .....	NOT SOLD SEPARATELY.
11B		SHIM O.5T .....	3 .....	NOT SOLD SEPARATELY.
11C		SHIM O.6T .....	3 .....	NOT SOLD SEPARATELY.
11D		SHIM O.7T .....	3 .....	NOT SOLD SEPARATELY.
11E		SHIM 0.8T .....	3 .....	NOT SOLD SEPARATELY.
11F		SHIM 0.15T .....	3 .....	NOT SOLD SEPARATELY.
12	129150-59120	RETAINER, INJ. PIPE .....	1 .....	INCLUDES ITEMS w/#
13#		CLAMP, UPPER .....	1 .....	NOT SOLD SEPARATELY.
14#		CLAMP, LOWER .....	1 .....	NOT SOLD SEPARATELY.
15#	129150-59130	BOLT M 4X12	2	
15.1#	129150-59131	BOLT M 4X14, HEX. SCKT.	2	
16	129100-59910	PIPE, FUEL INJECTION .....	1 .....	INCLUDES ITEMS 16A THRU 16C
16A		SLEEVE .....	2 .....	NOT SOLD SEPARATELY.
16B		NUT .....	2 .....	NOT SOLD SEPARATELY.
16C		PIPE 1.6*450 .....	1 .....	NOT SOLD SEPARATELY.
17	12921159820	PIPE, FUEL INJECTION .....	1 .....	INCLUDES ITEMS 17A THRU 17C, REPLACES 12910059920
17A		SLEEVE .....	2 .....	NOT SOLD SEPARATELY.
17B		NUT .....	2 .....	NOT SOLD SEPARATELY.
17C		PIPE 1.6*450 .....	1 .....	NOT SOLD SEPARATELY.
18	129100-59930	PIPE, FUEL INJECTION .....	1 .....	INCLUDES ITEMS 18A THRU 18C
18A		SLEEVE .....	2 .....	NOT SOLD SEPARATELY.
18B		NUT .....	2 .....	NOT SOLD SEPARATELY.
18C		PIPE 1.6*450 .....	1 .....	NOT SOLD SEPARATELY.
19	124766-59050	CLAMP 12	2	
20	124066-59100	CLAMP 8	7	
21	121250-59550	PIPE, FUEL	2	
22	119840-59560	PIPE, FUEL RETURN	1	
23	119840-59570	JOINT	1	
24	129150-59580	CAP	1	
25	105025-59750	PIPE, FUEL OIL	1	
25.1	129255-59580	PIPE, FUEL	1	
26	129100-59951	VALVE ASSY, CHECK .....	1 .....	INCLUDES ITEMS w/+
27+	129100-59850	SHIM SET .....	1 .....	INCLUDES ITEMS w/%

# YANMAR 3TNE88 DIESEL ENGINE — FUEL INJECTION VALVE

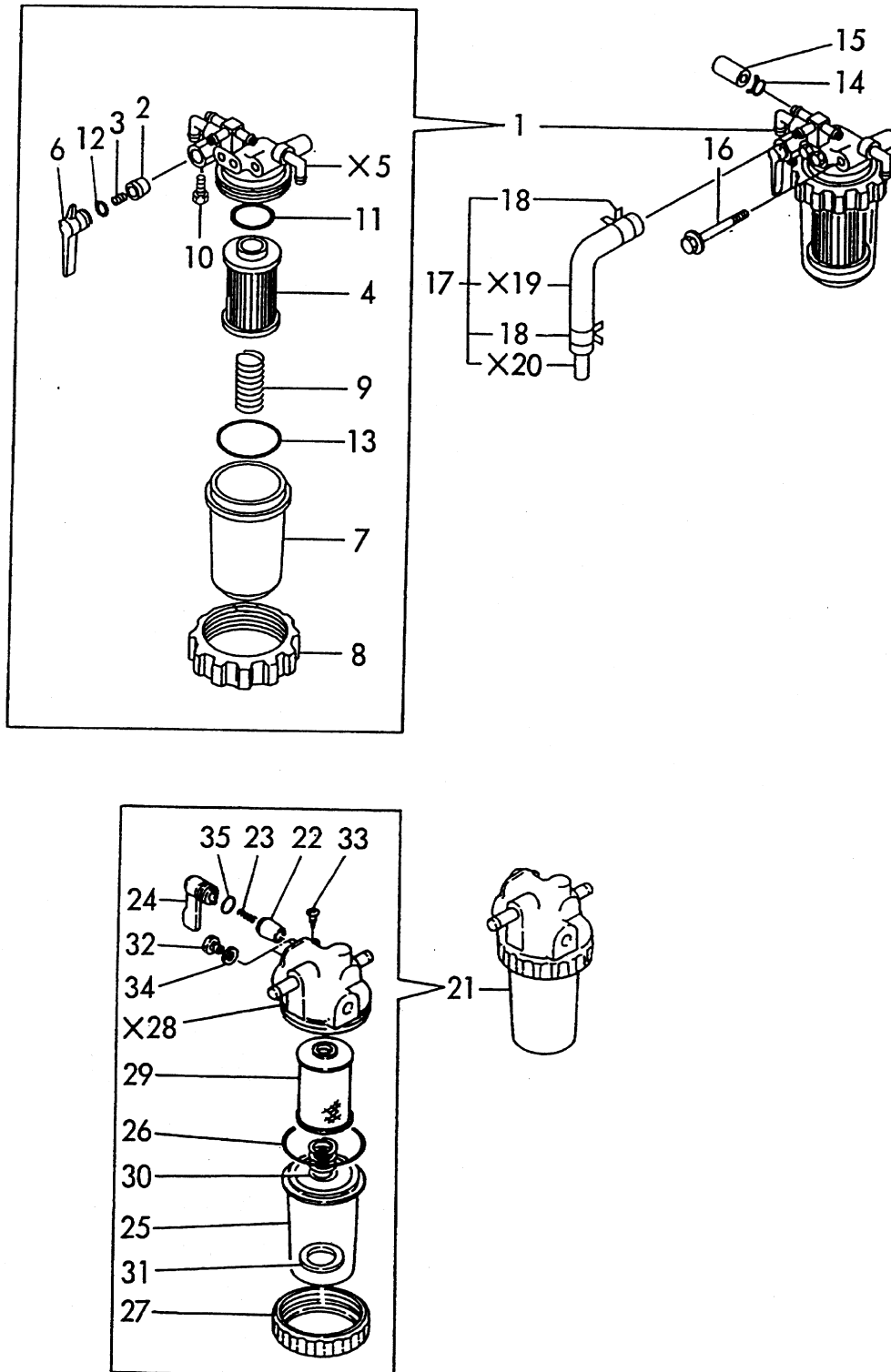
<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
28A+%		SHIM T=0.5 .....	2 .....	NOT SOLD SEPARATELY.
28B+%		SHIM T=1.0 .....	1 .....	NOT SOLD SEPARATELY.
29+		BODY, CHECK VALVE .....	1 .....	NOT SOLD SEPARATELY.
30+		SPRING .....	1 .....	NOT SOLD SEPARATELY.
31+		BALL 1/4, STEEL .....	1 .....	NOT SOLD SEPARATELY.
32+		PLUG 10 .....	1 .....	NOT SOLD SEPARATELY.
33	23414-120000	GASKET 12, ROUND	2	
34	103854-39140	FITTING	1	
35	101304-59020	JOINT	1	
36	124766-59050	CLAMP, HOSE	2	
37	124766-59050	CLAMP, HOSE	2	
38	104200-59170	PACKING	2	
39	129150-59511	HOSE L=340	1	
40	129255-59580	PIPE D13/7.5*L340	1	





# YANMAR 3TNE88 DIESEL ENGINE — FUEL STRAINER & OIL/WATER SEPARATOR

**FIG. 14**



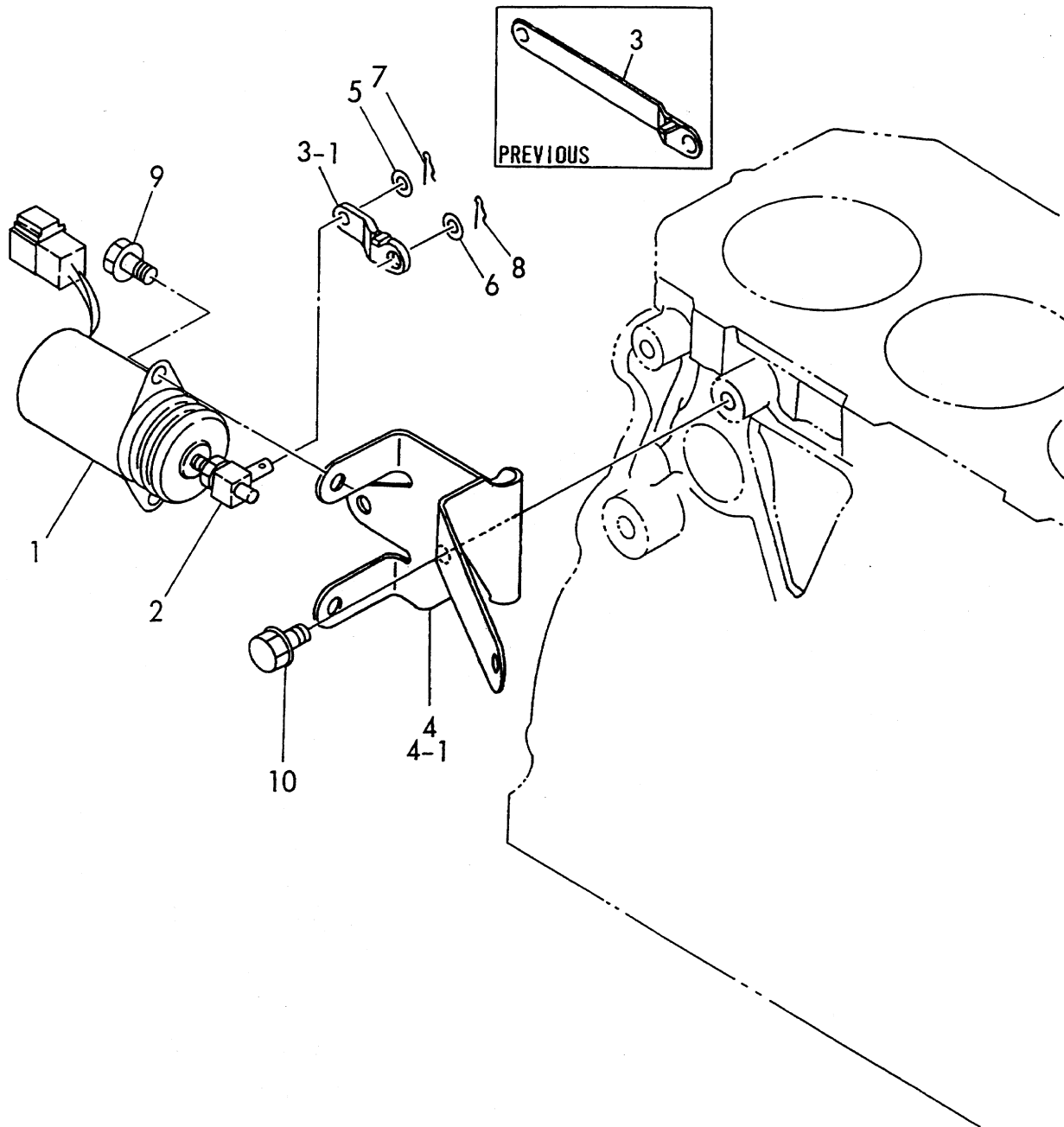
# YANMAR 3TNE88 DIESEL ENGINE — FUEL STRAINER & OIL/WATER SEPARATOR

## FUEL STRAINER & OIL/WATER SEPARATOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129100-55621	STRAINER ASSY, FUEL .....	1	INCLUDES ITEMS w/*
2*	104200-55321	VALVE, TAPER	1	
3*	104200-55330	SPRING, TAPER VALVE	1	
4*	129100-55650	ELEMENT, FUEL	1	
5*		BODY, STRAINER .....	1	NOT SOLD SEPARATELY.
6*	129100-55670	LEVER	1	
7*	129100-55680	CUP, STRAINER	1	
8*	129100-55690	RING, RETAINING	1	
9*	129100-55700	SPRING	1	
10*	104200-55750	SCREW M 4	1	
11*	24311-000160	O-RING 1A P-16.0	1	
12*	24311-240100	O-RING 1A P-10A	1	
13*	24321-000650	O-RING 1A G-65.0 .....	1	THIS PART IS ALSO SOLD BY GASKET SET (FIG. 18, REF #1, P/# 729030-92601).
14	124066-59100	CLAMP 8	1	
15	129150-59580	CAP	1	
16	26014-080702	BOLT W/WASHER M8X70	1	
17	119840-59601	BEND ASSY .....	1	INCLUDES ITEMS w/#
18#	124766-59050	CLAMP 12	2	
19#		BEND, RETURN .....	1	NOT SOLD SEPARATELY.
20#		JOINT .....	1	NOT SOLD SEPARATELY.
21	121850-5800	SEPARATOR ASSY, WATER .....	1	INCLUDES ITEMS w/+
22+	104200-55321	VALVE, TAPER	1	
23+	104200-55330	SPRING, TAPER VALVE	1	
24+	104200-55341	HANDLE, COCK	1	
25+	121254-55510	CUP, STRAINER	1	
26+	102103-55520	O-RING	1	
27+	110250-55610	RING, RETAINING	1	
28+		BODY .....		NOT SOLD SEPARATELY.
29+	121850-55710	SCREEN	1	
30+	121257-55720	SPRING, SCREEN	1	
31+	121257-55731	FLOAT	1	
32+	12406059380	PLUG 6 .....	2	REPLACE 10172055750
33+	104200-55750	SCREW M 4	1	
34+	23418-060000	GASKET 6, NYLON	2	
35+	24311-240100	O-RING 1A P-10A	1	

# YANMAR 3TNE88 DIESEL ENGINE— ENGINE STOP DEVICE

**FIG. 15**



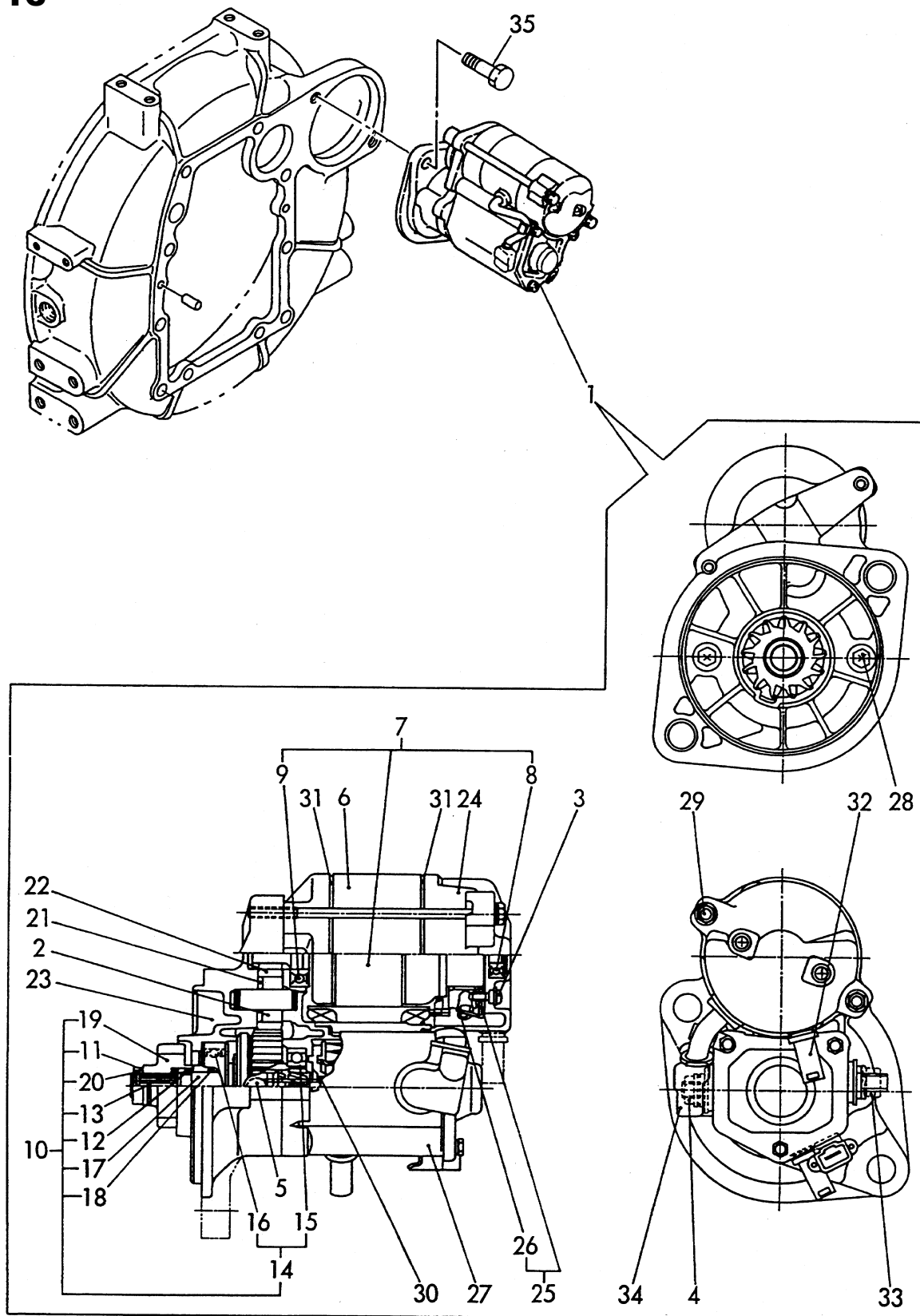
# YANMAR 3TNE88 DIESEL ENGINE — ENGINE STOP DEVICE

## ENGINE STOP DEVICE

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	119629-66800	SOLENOID	1	
2	119620-66820	JOINT	1	
3	129429-66860	LINK	1	
3.1	129129-66860	LINK, SOLENOID	1	
4	129429-66870	BRACKET	1	
4.1	119820-66870	BRACKET, SOLENOID	1	
5	22117-060000	WASHER 6	1	
6	22117-080000	WASHER 8	1	
7	22360-060000	SNAP PIN 6	1	
8	22360-080000	SNAP PIN 8	1	
9	26106-060102	BOLT M 6X10 PLATED	2	
10	26106-080142	BOLT M 8X14 PLATED	2	
10.1	26106-080162	BOLT M 8X16 PLATED	2	

# YANMAR 3TNE88 DIESEL ENGINE — STARTING MOTOR

**FIG. 16**



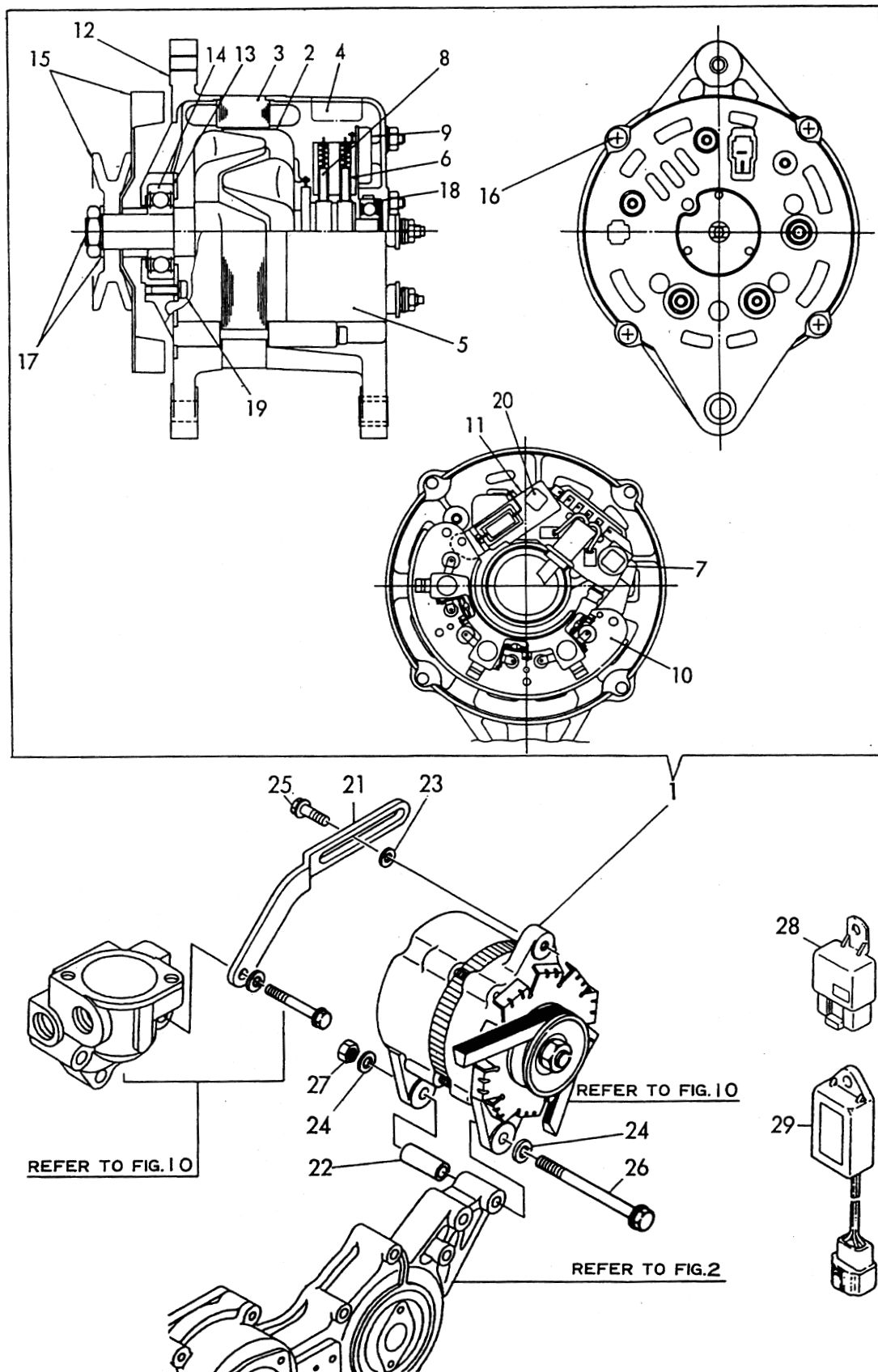
# YANMAR 3TNE88 DIESEL ENGINE — STARTING MOTOR

## STARTING MOTOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129129-77010	STARTER ASSY .....	1	INCLUDES ITEMS 2 THRU 34
2	X0283060061	ROLLER	5	
3	X0289030010	SCREW	2	
4	X9490561370	NUT	1	
5	X9491200240	BALL	1	
6	129129-77210	YOKE ASSY	1	
7	129129-77220	ARMATURE ASSY .....	1	INCLUDES ITEMS w/*
8*	129129-77230	BEARING	1	
9*	129129-77240	BEARING	1	
10	129129-77250	STARTER ASSY .....	1	INCLUDES ITEMS w/#
11#	X0280210230	NUT	1	
12#	X0283270140	RETAINER	1	
13#	X9491703371	SPRING, COIL	1	
14#	129129-77390	CLUTCH ASSY, STARTER .....	1	INCLUDES ITEMS w/+
15#+	129129-77440	BEARING	1	
16#+	129129-77450	BEARING	1	
17#	129129-77400	SHAFT	1	
18#	129129-77410	SPRING, COIL	1	
19#	129129-77420	PINION	1	
20#	129129-77430	RING	1	
21	129129-77260	RETAINER	1	
22	129129-77270	PINION	1	
23	129129-77280	HOUSING	1	
24	129129-77290	FRAME	1	
25	129129-77300	HOLDER ASSY .....	1	INCLUDES ITEMS w/%
26%	X9491730461	SPRING	4	
27	129129-77310	SWITCH ASSY	1	
28	129129-77320	BOLT	2	
29	129129-77330	BOLT	2	
30	129129-77340	SPRING	1	
31	129129-77350	O-RING	2	
32	129129-77360	BUSH, DRAIN	1	
32.1	X0280620480	COVER	1	
32.2	129129-77361	BUSH, DRAIN	1	
33	129129-77370	NUT	1	
34	129129-77380	CAP	1	
35	26116-120252	BOLT M 12X25 PLATED	2	

# YANMAR 3TNE88 DIESEL ENGINE — GENERATOR (OLD STYLE)

**FIG. 17**



# YANMAR 3TNE88 DIESEL ENGINE — GENERATOR (OLD STYLE)

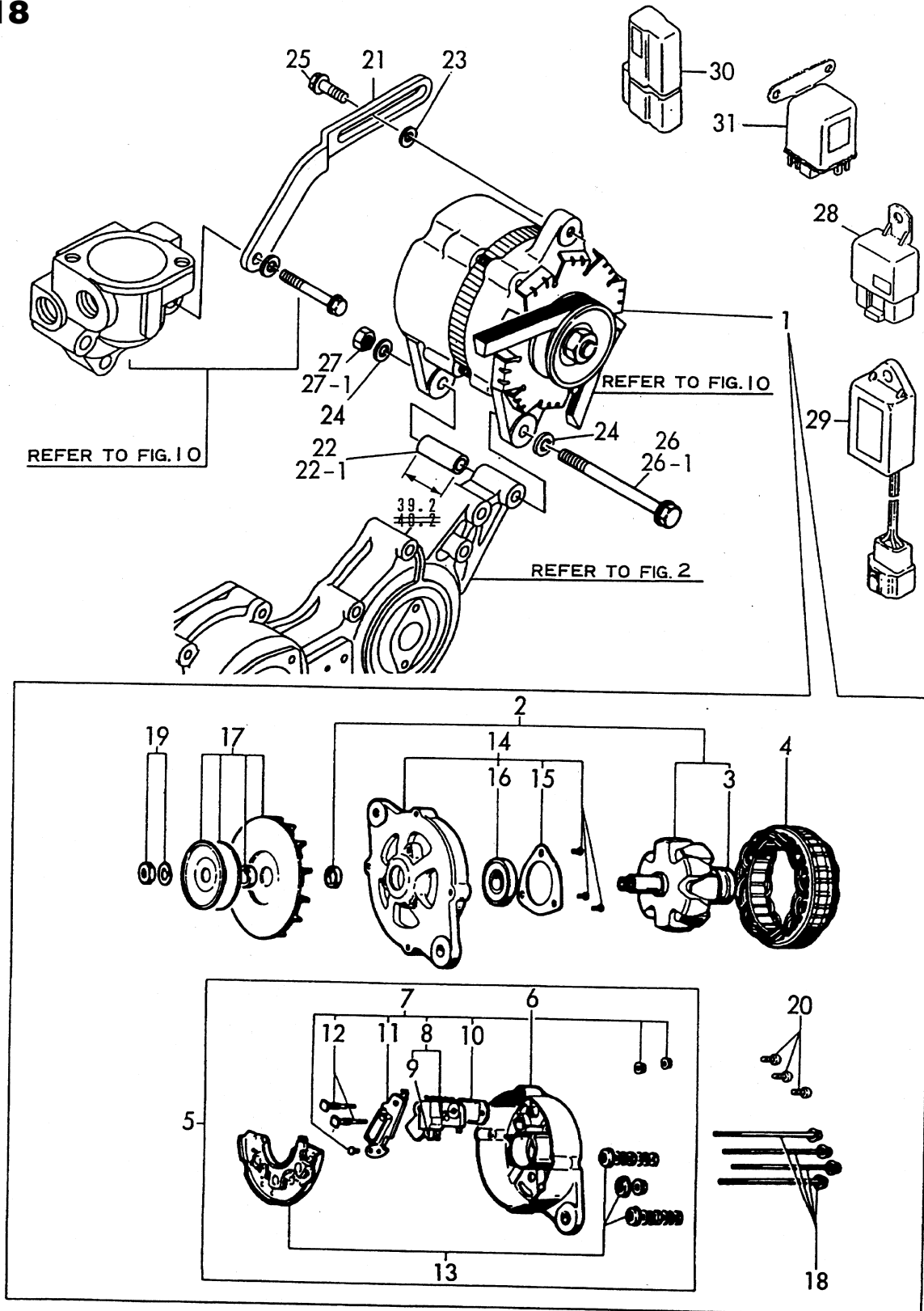
## GENERATOR (PREVIOUS)

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	129470-77200	GENERATOR (12V-80A) .....	1 .....	INCLUDES ITEMS 2 THRU 20
2	XL1805100	ROTOR ASSY	1	
3	XL1801200	STATOR ASSY	1	
4	XL1809300	COVER ASSY, REAR .....	1 .....	INCLUDES ITEMS w/*
5*	XL1805301	COVER, REAR	1	
6*	XL1556315	REGULATOR ASSY, BRUSH .....	1 .....	INCLUDES ITEMS w/#
7*#	XL2255320	DIODE L225-5320	1	
8*#	XL1801335	BRUSH	2	
9*#	XTR1Z63	REGULATOR	1	
10*	XL1808320	DIODE ASSY	1	
11*	XL2251318	CONDENSER ASSY	1	
12	XL23534011	COVER ASSY, FRONT .....	1 .....	INCLUDES ITEMS w/+
13+	XL150M14041	RETAINER	1	
14+	X6303BM	BALL BEARING 6303B	1	
15	XL1805500	PULLEY ASSY	1	
16	XL18018015	THROUGH BOLT	4	
17	XL1501810	NUT ASSY, PULLEY	1	
18	X6201NC	BALL BEARING	1	
19	XL15028001	SCREW ASSY	1	
20	124080-77520	BOLT M5	2	
21	129470-77330	ADJUSTER, BELT	1	
22	129470-77340	SPACER	1	
23	22137-080000	WASHER 8, POLISHED	1	
24	22137-100000	WASHER 10, POLISHED	2	
25	26106-080252	BOLT M 8X25 PLATED	1	
26	26116-101202	BOLT M 10X120 PLATED	1	
27	26716-100002	NUT M10	1	
28	119247-77100	RELAY, SAFETY	1	
29	119632-77920	TIMER	1	



# YANMAR 3TNE88 DIESEL ENGINE — GENERATOR (NEW TYPE)

**FIG. 18**



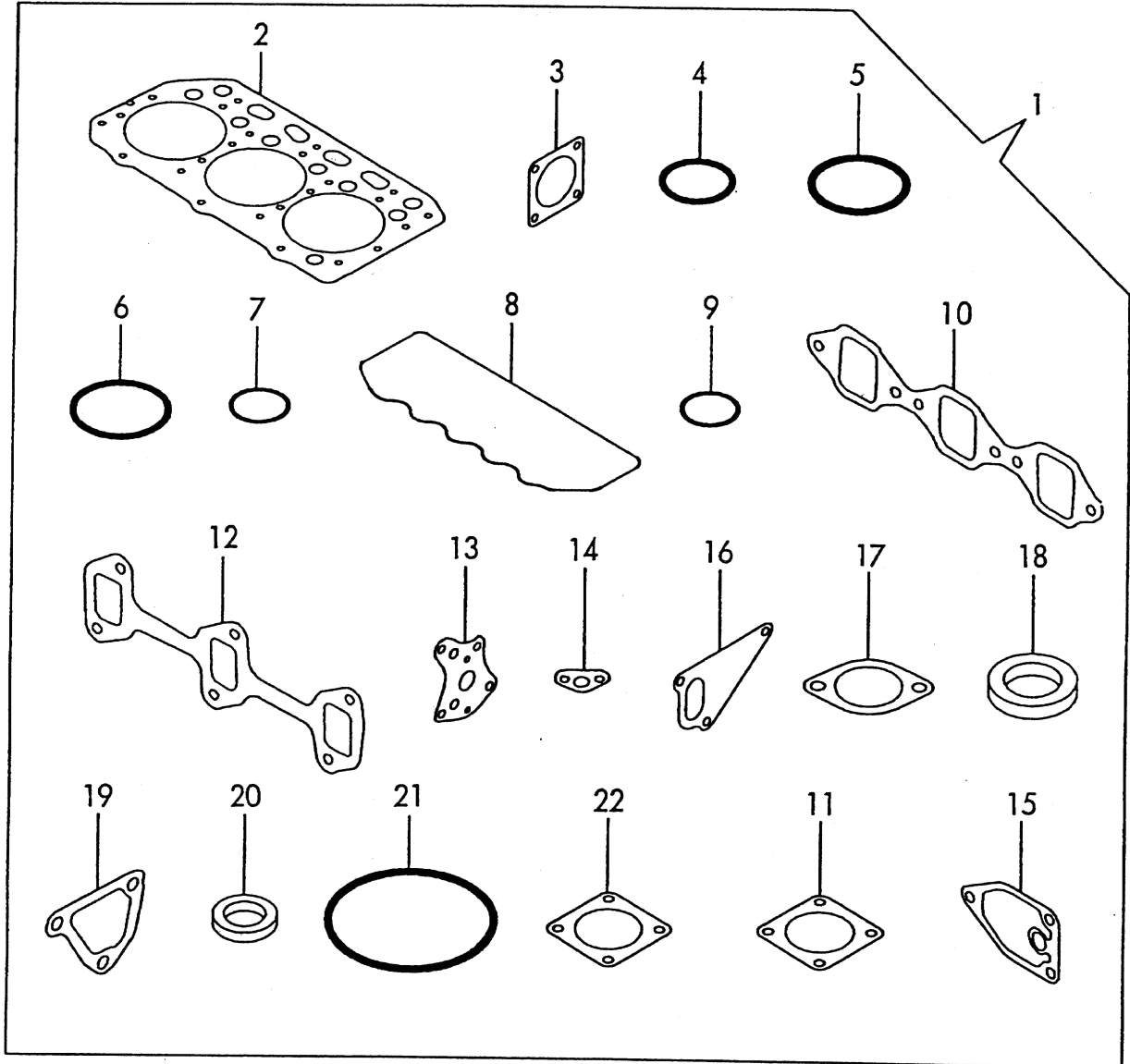
# YANMAR 3TNE88 DIESEL ENGINE — GENERATOR (NEW TYPE)

## GENERATOR (NEW TYPE)

NO	PART NO	PART NAME	QTY.	REMARKS
1	129772-77200	GENERATOR (12V-55A) .....	1	INCLUDES ITEMS 2 THRU 20
2	XL15571001	ROTOR ASSY .....	1	INCLUDES ITEMS w/*
3*	X6201SD	BALL BEARING	1	
4	XL15542001	STATOR ASSY	1	
5	XL15553002	COVER ASSY, REAR .....	1	INCLUDES ITEMS w/#
6#	XL22553012	COVER, REAR	1	
7#	XL1556315	REGULATOR ASSY, BRUSH .....	1	INCLUDES ITEMS w/+
8#+	XL2255330	BRUSH ASSY .....	1	INC. 9
9#+	XL12013262	BRUSH	2	
10#+	XTR1Z63	REGULATOR	1	
11#+	XL2251318	CONDENSER ASSY	1	
12#+	XL13513134	BOLT M5	2	
13#	XL2253320	DIODE ASSY	1	
14	XL2253400	FRONT COVER ASSY .....	1	INCLUDES ITEMS w/%
15%	XL15014042	BEARING RETAINER	1	
16%	X6203BM	BALL BEARING	1	
17	XL22555001	PULLEY ASSY	1	
18	XL15018015	BOLT, THROUGH	4	
19	XL1501810	NUT ASSY, PULLEY	1	
20	XL15028001	SCREW ASSY	1	
21	129470-77330	ADJUSTER, BELT	1	
22	129470-77340	SPACER	1	
22.1	129150-77340	SPACER	1	
23	22137-080000	WASHER 8, POLISHED	1	
24	22137-100000	WASHER 10, POLISHED	2	
25	26106-080252	BOLT M 8X25 PLATED	1	
25.1	26014-080252	BOLT M 8X25	1	
26	26116-101202	BOLT M 10X120 PLATED	1	
26.1	26106-081202	BOLT M 8X120 PLATED	1	
27	26716-100002	NUT M 10	1	
27.1	26366-080002	NUT M 8	1	
28	119247-77100	RELAY, SAFETY	1	
29	119632-77920	TIMER	1	
30	119643-66900	DIODE	1	
31	119650-77910	RELAY, GROW	1	

# YANMAR 3TNE88 DIESEL ENGINE — GASKET SET

**FIG. 19**



# YANMAR 3TNE88 DIESEL ENGINE — GASKET SET

## GASKET SET

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	729030-92601	GASKET SET (NON-ASB.) .....	1 .....	OPTIONAL PART INCLUDES ITEMS 2 THRU 22
2	129001-01340	GASKET, (NON-ASB.)	1	
3	124240-01883	GASKET, (NON-ASB.)	1	
4	121850-51960	O-RING, FUEL INJECT. PUMP	1	
5	24311-000320	O-RING 1A P-32.0	1	
6	24341-000500	O-RING 1A S-50.0	1	
7	24311-000320	O-RING 1A P-32.0	1	
8	129150-11310	GASKET, BONNET	1	
9	24311-000120	O-RING 1A P 12.0	3	
10	129150-12111	GASKET, (NON-ASB.)	1	
11	124701-11911	GASKET, (NON-ASB.)	1	
12	129150-13110	GASKET, EXH. MANIFOLD	1	
13	129150-32020	GASKET, L. O. PUMP	1	
14	129150-35041	GASKET, (NON-ASB.)	1	
15	129150-35111	GASKET, (NON-ASB.)	1	
16	129100-42020	GASKET, C.W. PUMP	1	
17	129795-49551	GASKET, (NON-ASB.)	1	
18	129150-49811	GASKET, (NON-ASB.)	1	
19	129100-49840	GASKET, THERMO. CASE	1	
20	124465-44950	GASKET 16	2	
21	24321-000650	O-RING 1A G-65.0	1	
22	129150-77511	GASKET, (NON-ASB.)	1	

**PAYMENT TERMS**

Terms of payment for parts are net 10 days.

**FREIGHT POLICY**

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

**MINIMUM ORDER**

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

**RETURNED GOODS POLICY**

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
  - a. The parts numbers and descriptions must match the current parts price list.
  - b. The list must be typed or computer generated.
  - c. The list must state the reason(s) for the return.
  - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
  - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.

4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.
5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
  - a. Obsolete parts. (If an item is listed in the parts price book as being replaced by another item, it is obsolete.)
  - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
  - c. Any line item with an extended dealer net price of less than \$5.00.
  - d. Special order items.
  - e. Electrical components.
  - f. Paint, chemicals, and lubricants.
  - g. Decals and paper products.
  - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for 5 working days from notification, pending instructions. If a reply is not received within 5 days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

**PRICING AND REBATES**

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

**SPECIAL EXPEDITING SERVICE**

A \$20.00 to \$50.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

**LIMITATIONS OF SELLER'S LIABILITY**

Multiquip shall not be liable here under for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

**LIMITATION OF WARRANTIES**

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. A part from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.



# PARTS AND OPERATION MANUAL

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*PLEASE HAVE THE MODEL AND SERIAL NUMBER  
ON-HAND WHEN CALLING*

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*800-427-1244 or 310-537-3700*

*FAX: 800-672-7877 or 310-637-3284*

### **SERVICE DEPARTMENT/TECHNICAL ASSISTANCE**

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*FAX: 310- 537-4259*

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*FAX: 310- 537-1173*

### **MAIN**

*800-421-1244 or 310-537-3700*

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