

INGERSOLL-RAND

V-4 PORTABLE PUMP

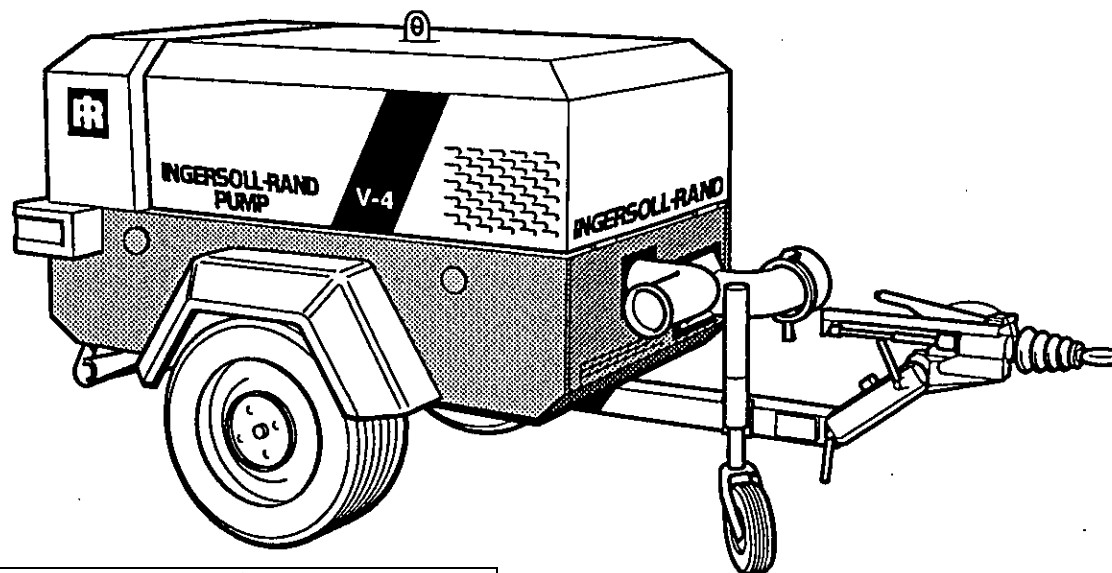
DEUTZ ENGINE

PORTABLE PUMP DEUTZ ENGINE
OPERATION AND MAINTENANCE MANUAL
with parts catalogue

POMPE MOBILE MOTEUR DEUTZ
MANUAL D'UTILISATION ET D'ENTRETIEN
avec catalogue de pièces détachées

MOBIELE POMP DEUTZ-MOTOR
BEDIENINGS EN ONDERHOUDSHANDBOEK
onderdelenkatalogus

DEUTZMOTOR
BEDIENUNGS-UND WARTUNGSANLEITUNG
mit ersatzteilliste



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PARTS BOOK C.P.N. 92798446

ISSUE No. 3

DATE: AUG 1992
Revised (10-12)

SERIAL NUMBER RANGE

00210

TO

00244

PARTS BOOK PUBLICATION INSTRUCTIONS

TO : G.Prescott
FROM : C.Ogden

DATE : 30.7.92

This section to be completed by Engineering staff

MACHINE MODEL : V-4 BOOK CPN : 92798446
ISSUE NUMBER : 3 DATE REQUIRED : 3.8.92

INSTRUCTIONS

PREPARE NEW ISSUE USING MASTERS

ENCLOSED.

PLEASE SEND 3 COPIES TO C.OGDEN AND
15 COPIES TO G.CALWERT.

C.Ogden

**ALL ENCLOSED DOCUMENTATION MUST BE RETURNED
WITH THE PROOF COPY (INCLUDING THIS SHEET)**

DOCUMENTS ENCLOSED

- ☐ ILLUSTRATIONS ☐ QUANTITY
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COMMENT _____

WARNINGS Warnings call attention to instructions which must be followed precisely to avoid injury or death.	ATTENTION ! L'indication "attention" précise que les instructions doivent être suivies absolument pour éviter tout accident grave.	WAARSCHUWING! Waarschuwing! vestigt de aandacht op instructies die strikt opgevolgd dienen te worden om ernstige persoonlijke ongelukken te voorkomen die in het uiterste geval de dood tot gevolg kunnen hebben.	WARNUNG Warnungen lenken die Aufmerksamkeit auf genau einzuhaltende Vorschriften zur Vermeidung von Verletzungen oder Todeställen.
CAUTIONS Cautions call attention to instructions which must be followed precisely to avoid damaging the product, process or it's surroundings.	PRECAUTIONS A PRENDRE L'indication "précautions à prendre" précise que les instructions doivent être suivies absolument pour éviter d'endommager le produit, le procès ou son environnement.	VOORZICHTIG! 'Voorzichtig' vestigt de aandacht op instructies die strikt opgevolgd dienen te worden om schade aan het produkt en/of de omgeving te voorkomen.	ACHTUNG Achtung lenkt die Aufmerksamkeit auf genau einzuhaltende Instruktionen, um Schaden des Produktes, des Verfahrens oder der Umgebung zu vermeiden.
NOTES Notes are used for supplementary information.	NOTES L'indication "notes" donne des compléments d'information.	N.B. Een N.B. dient om aanvullende informatie te verstrekken.	HINWEISE Hinweise dienen zur weiteren Information.

SAFETY PRECAUTIONS

1. **WARNING:** Ensure that the operator reads and *understands* the decals and consults the manual before maintenance or operation.

2. **WARNING:** Make sure that all protective covers are in place and that the canopy/doors are closed during operation.

3. **WARNING:** When parking, ensure the use of the handbrake and also wheel chocks if required.

4. **WARNING:** Ensure that adequate ventilation of the cooling system and exhaust gases is maintained at all times.

**PRECAUTION
SECURITE****POUR****LA****VEILIGHEIDSMATREGELEN****SICHERHEITSVORKEHRUNGEN**

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5. **WARNING:** The following substances are used in the manufacture of this machine and *may* be hazardous to health if used incorrectly:

- . engine lubricant
- . preservative grease
- . rust preventative
- . diesel fuel
- . battery electrolyte

AVOID INGESTION, SKIN CONTACT AND INHALATION OF FUMES

6. **WARNING:** The following substances *may* be produced during the operation of this machine:

- . brake lining dust
- . engine exhaust fumes

AVOID INHALATION

7. **WARNING:** Components of a non-metallic fibrous material may contain small quantities of white asbestos. When handling, dismantling or assembling these components, the following must be observed:

- . *Always operate in a well ventilated area.*
- . *Dispose of waste in a sealed container.*
- . *Use water to damp down dust.*
- . *Avoid inhalation of dust particles.*

8. **WARNING:** This machine is not designed to be capable of handling liquids which may emit flammable gases or vapour.

9. **WARNING:** Under no circumstances should the use of volatile liquids such as Ether be used for starting this machine.



10. **CAUTION:** *For the life of the machine, periodically check all pressure hoses and connections for visible deterioration.*

11. **NOTE:** Before towing, ensure that the brakes and lights are functioning correctly and meet necessary road traffic requirements.

12. **NOTE:** In compliance with EC directive 86/188/EEC on *Noise at the Workplace*, the following data is supplied:

Average sound pressure level at 10m radius measured to 79/113/EEC is 72dB (A).

Further information may be obtained by request through Ingersoll-Rand customer services department.

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ABBREVIATIONS

*	Not illustrated
AR	As required
D	Germany
DK	Denmark
E	Spain
F	France
GB	Great Britain
I	Italy
N	Norway
NL	Netherlands
P	Portugal
S	Sweden

ABBREVIATIONS

*	Non illustré
AR	Comme demandé
D	Allemagne
DK	Danemark
E	Espagne
F	France
GB	Angleterre
I	Italie
N	Norvege
NL	Hollande
P	Portugal
S	Suede

AFKORTINGEN

*	Niet geïllustreerd
AR	Als vereist
D	Duitsland
DK	Denemarken
E	Spanje
F	Frankrijk
GB	Groot Brittanië
I	Italië
N	Noorwegen
NL	Nederland
P	Portugal
S	Zweden

KÜRZEL

*	Nicht abgebildet
AR	Wie erforderlich
D	Deutschland
DK	_____
E	_____
F	_____
GB	_____
I	Italien
N	_____
NL	_____
P	_____
S	_____

FOREWORD

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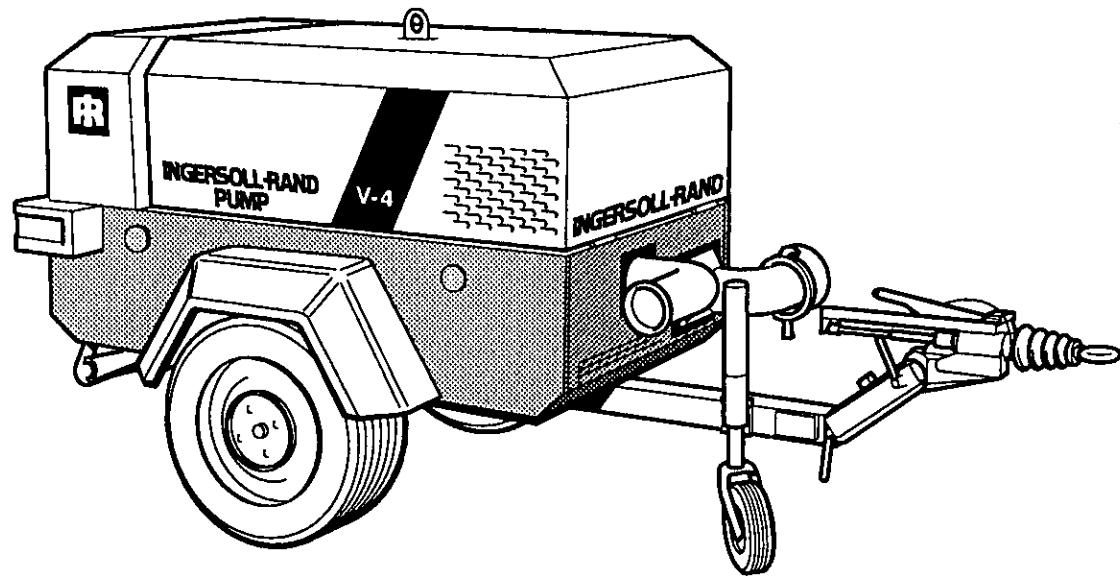
DEUTZ ENGINE

OPERATION AND MAINTENANCE MANUAL

MANUAL D'UTILISATION ET D'ENTRETIEN

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BEDIENUNGS-UND WARTUNGSANLEITUNG

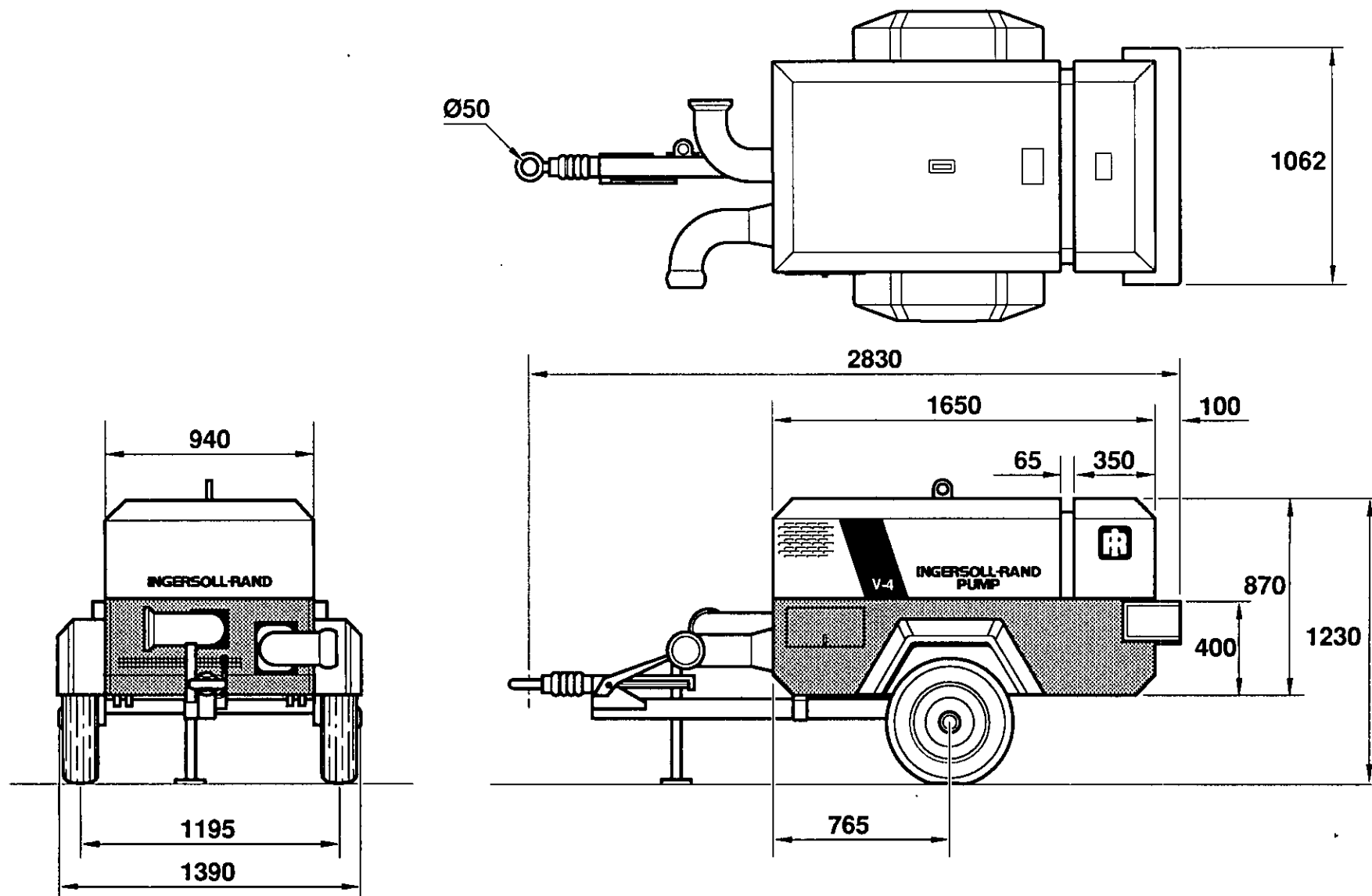


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GENERAL INFORMATION FHRG

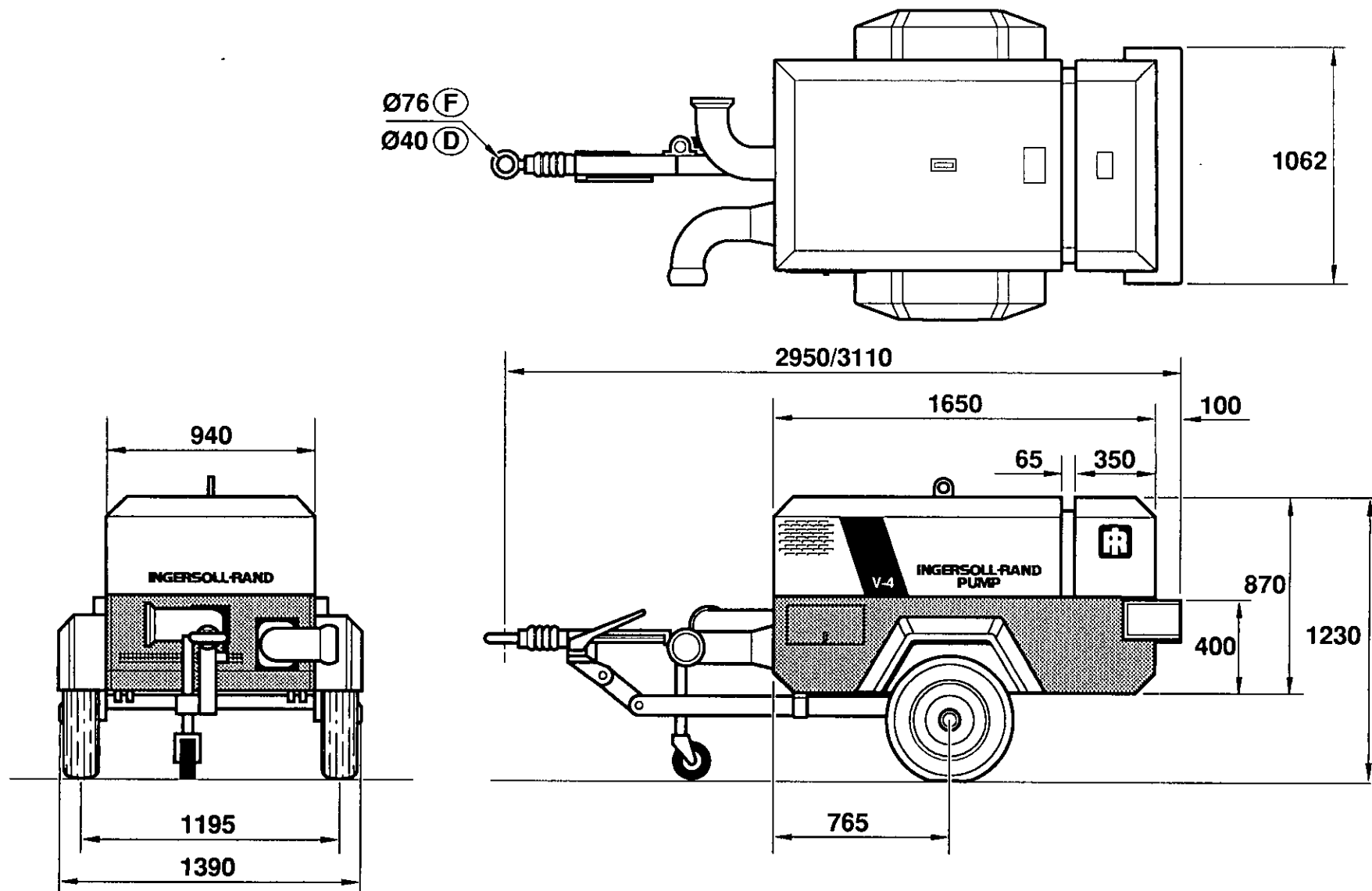
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4.1

GENERAL INFORMATION VHRG

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4.2

GENERAL INFORMATION

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PUMP

Model V-4
Performance @ 2000 RPM:
Maximum flow 153m³/hr
Maximum head 36m
Maximum suction
lift 8m
Maximum solids
size 40mm
Maximum liquid
temperature 60C
Operating ambient
temperature at
sea level -5C to 45C
Lubrication system Oil flooded

ENGINE

Type/Model Deutz F3L1011
Number of
cylinders 3
Oil capacity 5.5 litres
Speed at full load 2000 RPM
Electrical system 12 volt -ve earth
Power available at
2000 RPM 19KW
Fuel tank capacity 112 litres

VACUUM PRIMING PUMP

Type/Model	Contact: <i>Ingersoll-Rand</i>
Speed	2000 RPM
Flow	35 cfm
Vacuum	1000 millibar
Priming times	Dependant on lift (4m in 25 secs.)
Cooling	Air cooled

**WEIGHTS FIXED HEIGHT
RUNNING GEAR
(F.H.R.G.)**

Shipping	917 kg
Gross	970 kg

**WEIGHTS VARIABLE HEIGHT
RUNNING GEAR
(V.H.R.G.)**

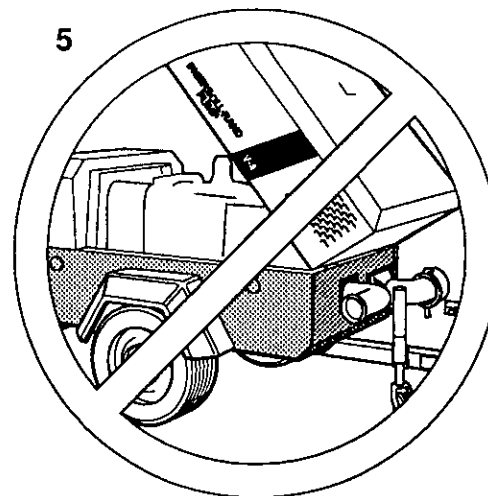
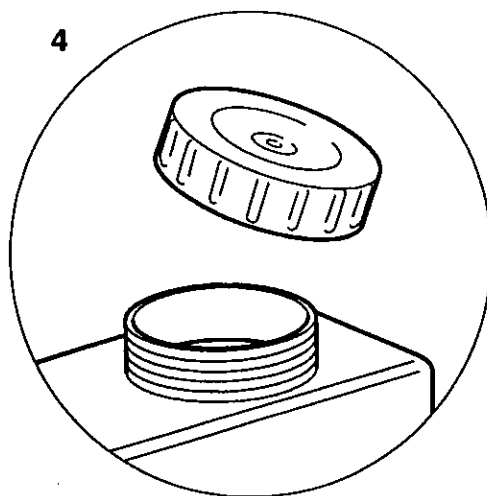
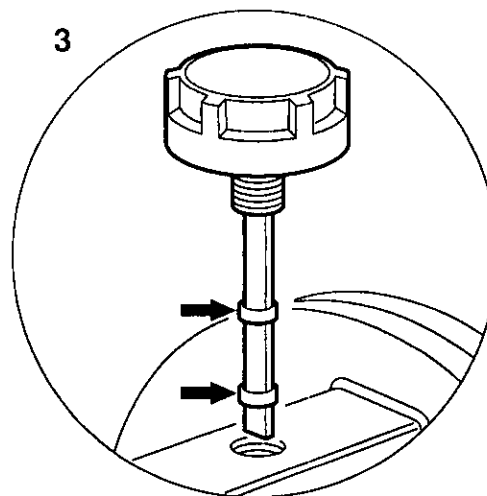
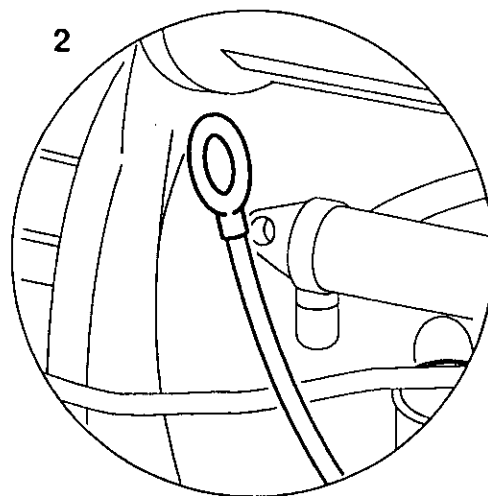
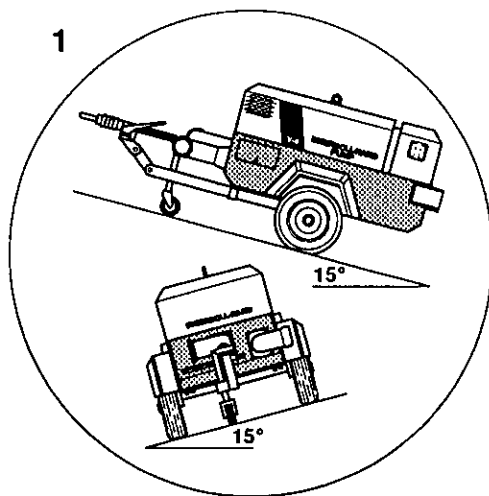
Shipping	941 kg
Gross	994 kg

Number of wheels	2
Tyre size	41/2J X 13-165
Tyre pressure	2.9 bar (42 psig)

5.0

OPERATING INSTRUCTIONS

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COMMISSIONING

Upon receipt of the unit, and prior to putting it into service, it is important to adhere strictly to the instructions given below in *PRIOR TO STARTING*.

Before towing the unit ensure that the tyre pressures are correct (refer to the *GENERAL INFORMATION* section of this manual) and that the handbrake is functioning correctly (refer to the *MAINTENANCE* section of this manual. Before towing the unit during the hours of darkness ensure that the lights are functioning correctly (where fitted)

PRIOR TO STARTING

Refer to the diagram on page 5.0

1: Place the unit in a position that is as level as possible. The design of the unit permits a 15 degree lengthways and sideways limit on out of level operation. It is the engine, not the pump, that is the limiting factor. When the unit has to be operated out of level, it is important to keep the engine oil level near the high level mark (with the unit level).

CAUTION: *Do not overfill either the engine or the pump with oil*

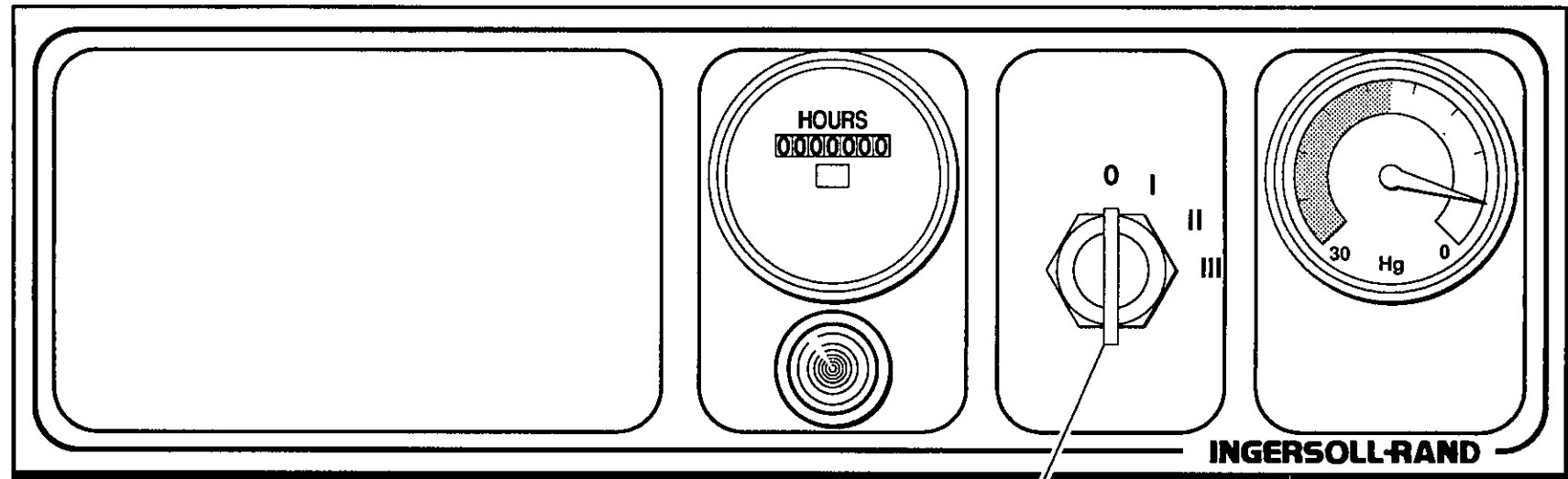
2: Check the engine lubrication oil in accordance with the operating instructions in the Engine Operator's Manual.

3: Check the mechanical seal and lubricating oil daily. Levels should be between the maximum and minimum marks on the dipstick.

5.2

OPERATING INSTRUCTIONS

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PRIOR TO STARTING
continued.....

4: Check the diesel fuel level. A good rule is to top up at the end of each working day. This prevents condensation from occurring in the tank.

CAUTION: Use only a No. 2-D diesel fuel oil with a minimum octane number of 45 and a sulphur content not greater than 0.5%.

5: **CAUTION:** Do not operate the machine with the canopy in the raised position as this may cause it to overheat.

6: Check that the suction and discharge hoses are connected in the correct alignment. Incorrect alignment could result in air bleeding into the pump—impairing the priming function.

7: Ensure the strainer on the suction pipe is free from foreign material.

CAUTION: It is important to use a strainer on all suction pipes. The maximum allowable size of solids that are able to pass through the strainer must not exceed 40mm.

5.4

OPERATING INSTRUCTIONS

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STARTING THE UNIT

WARNING: Under no circumstances should the use of volatile liquids such as Ether be used for starting this machine.

Refer to the diagram on page 5.2

All normal starting functions are incorporated in the key operated switch.

- 1: Turn the key switch to position I, the battery condition light will illuminate.
- 2: Continue to turn the switch to position III (engine start position).
- 3: Release to position II when the engine starts.
- 4: Release to position I when the battery condition light is extinguished.

STOPPING THE UNIT

Refer to the diagram on page 5.2

Turn the start switch to the 0 (off) position.

CAUTION: Should the unit be left stopped for any considerable length of time, for example overnight, or left in extreme cold conditions, disconnect the suction/discharge pipes and run the unit for several seconds to expel as much water as possible from the pump and tank.

EMERGENCY STOPPING

Refer to the diagram on page 5.2

In the event that the unit has to be stopped in an emergency, **TURN THE KEY-SWITCH LOCATED ON THE INSTRUMENT PANEL TO THE 0 (OFF) POSITION.**

RE-STARTING AFTER AN EMERGENCY

If the unit has been switched off because of a machine malfunction, then identify and correct the fault before attempting to re-start.

If the unit has been switched off because it constituted a safety hazard, then ensure that the machine can be operated safely before re-starting.

Refer to the *PRIOR TO STARTING* and *STARTING THE UNIT* instructions earlier in this section before re-starting the machine.

MONITORING DURING OPERATION

Refer to the diagram on page 5.2

Observation of the vacuum gauge will give an indication as to the performance of the pump. The reading shown will depend upon the application for which the pump is being used, but generally it will be indicating between 15" and 25" Hg.

If the reading falls below 15" Hg. then it will be necessary to check the vacuum pump performance and the system for air leaks.

Should any of the two shut-down conditions occur, the unit will stop. These are:

- 1: Low engine oil pressure
- 2: Alternator no-charge

5.6

OPERATING INSTRUCTIONS

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OPERATING PROCEDURES FOR ABNORMAL CONDITIONS

1. PUMPING OF ABRASIVE SLURRIES

When used for the pumping of abrasive slurries, such as Bentonite, it is strongly recommended that the Pump unit be fitted with an optional Vacuum Filter Kit. This filter fits between the float valve and the Vacuum Pump and protects the Vacuum Pump from the slurry in the unlikely event of a float valve malfunction allowing the abrasive slurry to pass into the Vacuum Pump. If a malfunction should occur, Vacuum Pump life may be reduced.

2. PUMPING WITH FLOODED SUCTION

The 'V' Range of Pumps are designed to operate under suction lift conditions, i.e. when the liquid to be pumped is below the level of the Pump. If it is required to use the Pump in a flooded suction application, i.e. where the liquid to be pumped is above the level of the Pump and flows into the Pump under the force of gravity, then the following procedures should be adopted:

a) SHORT TERM

Disconnect the vacuum pipe from the valve top assembly so that no vacuum is created in the float chamber and the Vacuum Pump is drawing air from the atmosphere only.

**OPERATING PROCEDURES FOR
ABNORMAL CONDITIONS**
continued.....

b) MEDIUM AND LONG TERM

i) Remove the vacuum pump drive belt to prevent the unnecessary operation of the Vacuum Pump and the possible ingestion of dust from the atmosphere.

ii) Remove the stub pipe from the float valve assembly and fit a 3/4" BSP pipe plug.

iii) Seal off the air holes in the valve cap with a jubilee clip or similar.

i) & ii) will ensure that the Pump will not leak in the event of the float valve being jammed open with debris.

Note: After any period of operation under flooded suction, the valve top assembly should be thoroughly washed through with clean water via the stub pipe, whilst the valve is operated to loosen any debris which may prevent the correct operation of the float valve.

In order to prime the Pump it may be necessary to allow trapped air to escape through the drain taps.

6.0

MAINTENANCE

MAINTENANCE

ONDERHOUD

WARTUNG

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Daily	Pump oil	Check level
Weekly/ 100 hours	Battery	Check electrolyte level and replenish with distilled water
	Protective shutdown switches	Check for tightness
	Fan belts	Check for correct tension and re-tension if necessary. Check for wear and replace if necessary
	Suction/discharge pipes	Check for leaks and replace seals if necessary
	Air Filters	Inspect and clean if necessary
500 hours	Air filter element	Replace
3 months	Safety shutdown system	Check that the switches function correctly
	Running gear	Check the bolts securing the running gear to the chassis. Re-tighten where necessary (refer to the TORQUE SETTING TABLE later in this section).
6 months/ 3000 hours	Mechanical oil seal	Replace
	Hoses	Inspect and replace if necessary
12 months	Wheel bearings	Pack with grease
	Engine oil pressure switch	Check that the switch functions correctly
As required	Battery	Clean and grease terminals
	Running gear	Check brakes and brake cables. Adjust and grease linkages

GENERAL

This section refers to the various components which require periodic maintenance and replacement.

The service/maintenance chart indicates the various components' descriptions and the intervals when maintenance has to take place. Oil capacities, etc., can be found in the *GENERAL INFORMATION* section of this Manual.

For any specification or specific requirement on service or preventative maintenance for the engine, refer to the *Engine Manufacturer's Manual*.

PROTECTIVE SHUT-DOWN SYSTEM

Consists of an oil pressure switch and an alternator no-charge switch.

At three month intervals, test each switch as follows:

- . Start the unit.
- . Disconnect each switch in turn – the unit should shut down.
- . Re-connect the switch.

At twelve month intervals, test the engine oil pressure switch as follows:

- . Remove the switch from the unit.
- . Connect to an independent low pressure supply (either air or oil).
- . The switch should operate at 1.5 bar.

CAUTION: *Never remove or replace switches when the machine is running.*

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ENGINE AIR FILTER ELEMENT

The air filter should be inspected regularly (refer to chart) and the element replaced when the restriction indicator shows red or every 500 hours, whichever comes first.

Removal

CAUTION: *Never remove or replace elements when the machine is running.*

Clean the exterior of the filter housing and remove the filter element by releasing the wing-nut.

Inspection

Check for cracks, holes or any other damage to the element by holding it up to a light source, or by passing a lamp inside.

Check the seal at the end of the element and replace if any sign of damage is evident.

Re-assembly

Assemble the new element into the filter housing ensuring that the seal seats properly.

Secure the element in the housing by hand tightening the wing-nut.

Reset the restriction indicator by depressing the rubber diaphragm.

Before restarting the machine, check that all clamps are tight.

**ENGINE AIR FILTER ELEMENT
(Re-assembly) continued.....**

Note: In the event that a new filter element is not readily available, the element can be re-used after cleaning. In this case the following procedure must be carried out:

Clean the element by directing a jet of clean, dry compressed air, no more than 5 bar (75 p.s.i.), at an angle of 45 degrees to the outside of the element. Carefully blow any dust from each fold of the element.

Compressed air cleaning is only recommended when a new element is not available.

COOLING FAN DRIVE

Periodically check that the fan mounting bolt in the fan hub has not loosened. If, for any reason, it becomes necessary to remove the fan or re-tighten the fan mounting bolt, apply a good grade of commercially available thread locking compound to the bolt threads and tighten to the torque value shown in the *Torque Setting Table* later in this section.

The fan belts should be checked regularly for wear and correct tensioning.

FUEL SYSTEM

The fuel tanks should be filled daily or every eight hours. To prevent condensation in the fuel tanks, it is advisable to top up after the machine is shut down or at the end of each working day. Every six months, the drain plugs should be removed from the tanks, draining any sediment or accumulated condensate.

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FUEL SYSTEM continued.....

Note: The fuel system is *self-bleeding* – refer to the *Engine manufacturers manual*.

HOSES

All components of the engine cooling air intake system should be checked periodically to keep the engine at peak efficiency.

At the recommended intervals, (see maintenance chart), inspect all of the intake lines to the air filter, and all flexible hoses used for air lines, oil lines and fuel lines.

Periodically inspect all pipework for cracks, leaks, etc. and replace immediately if damaged.

ENGINE ANCILLARY EQUIPMENT

Several proprietary items attached to the engine require servicing at regular intervals. Refer to the *Engine Manufacturer's manual*.

ELECTRICAL SYSTEM

WARNING: Always disconnect the battery cables before performing any maintenance or service.

Inspect the engine oil pressure switch and the instrument panel relay contacts for evidence of arcing and pitting. Clean where necessary.

Check the mechanical action of the components.

ELECTRICAL SYSTEM continued..

Check the security of electrical terminals on the switches and relays i.e. nuts or screws loose, which may cause local hot spot oxidation.

Inspect the components and wiring for signs of overheating i.e. discolouration, charring of cables, deformation of parts, acrid smells and blistered paint.

BATTERY

Keep the battery terminals and cable clamps clean and lightly coated with petroleum jelly to prevent corrosion. Maintain the correct electrolyte level within the cells, using only distilled water.

The retaining clamp should be kept tight enough to prevent the battery from moving.

TYRES/TYRE PRESSURE

See the *General Information* section of this Manual.

RUNNING GEAR/WHEELS

Check the wheel nut torque 20 miles (32 kilometres) after refitting the wheel. Refer to the *Torque Setting Table* later in this section.

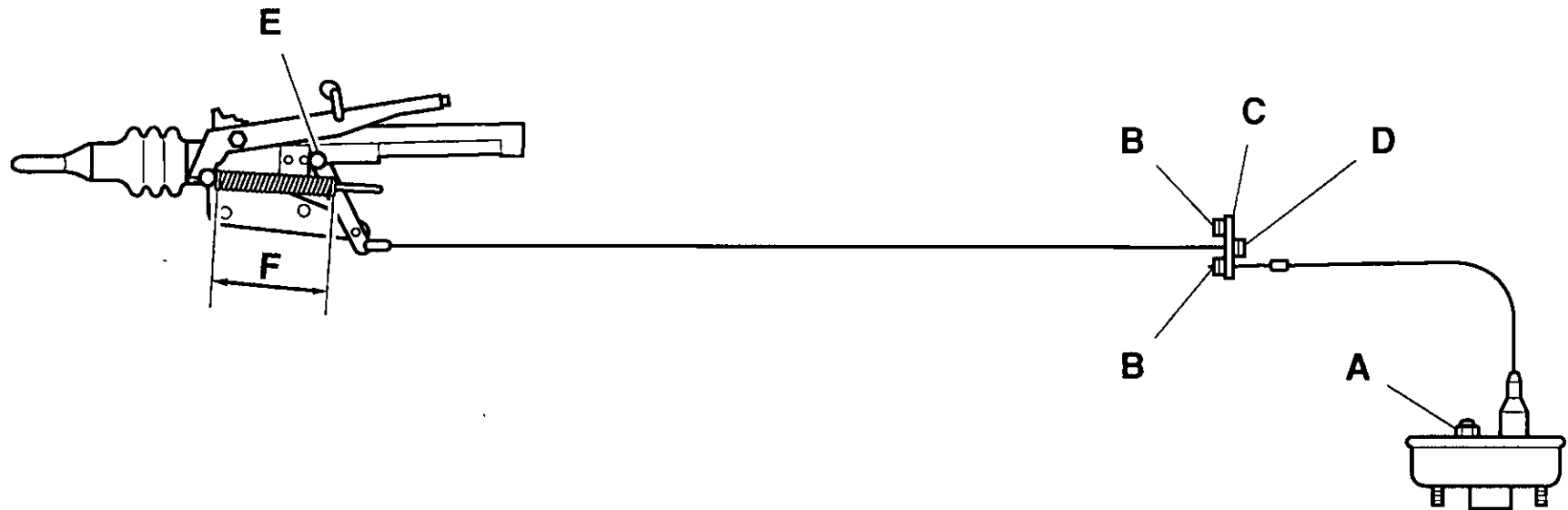
The bolts securing the running gear to the chassis should be checked periodically for tightness (refer to maintenance chart for frequency) and re-tightened where necessary. Refer to the *Torque Setting Table* later in this section for correct torque.

6.6

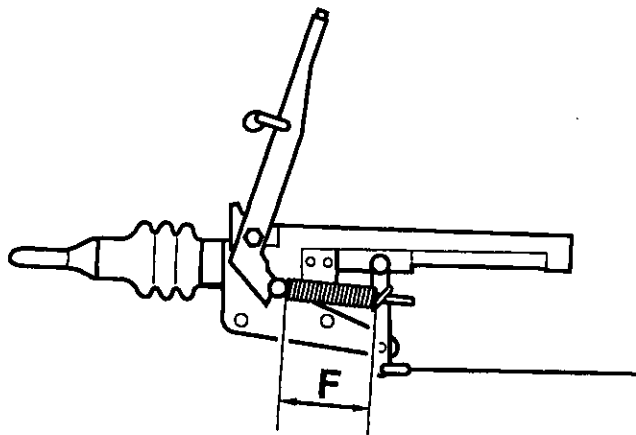
MAINTENANCE

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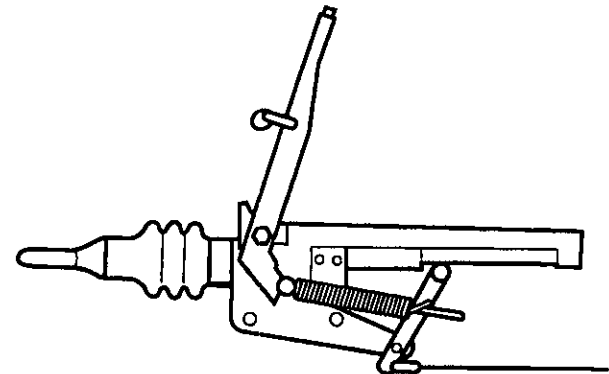
1



2



3



WHEEL BRAKE ADJUSTMENT

Ensure that the handbrake lever is fully released and that the coupling head is fully extended.

Each wheel brake must be adjusted in turn whilst rotating the wheel in the forward towing direction.

Refer to the diagram above.

1: Adjust the brakes until they *lock-up* by using adjuster **A**

Release adjuster **A** until only a slight resistance is felt during wheel rotation.

Adjust nuts **B** and lock with the equaliser **C** parallel to the axle.

Take up the play with nut **D** behind the equaliser but without pre-loading the brakes (the wheels should rotate freely). Ensure that all locknuts are secured. The overrun lever play dimension **E** should not be greater than 14mm (fixed height running gear) or 16mm (variable height running gear). The spring free length dimension **F** should be 190mm.

2: Engage the handbrake lever in the first notch position. The spring length dimension **F** should now be between 40mm and 50mm.

3: When the unit is pushed backwards whilst parked, the brakes adopt their reverse mode and the spring store extends to maintain the parked condition. The handbrake will then feel less tensioned but the unit will remain stationary.

CAUTION: Check the wheel nut torque 20 miles after refitting the wheels (refer to the 'Torque setting table' later in this section).

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LUBRICATION

The engine is initially supplied with engine oil sufficient for a nominal 250 hours operation (for more information, consult *The Engine Manufacturer's Manual*).

CAUTION: Always check the oil levels before putting a new machine into service.

If, for any reason, the unit has been drained, it must be re-filled with new oil before it is put into operation.

ENGINE LUBRICATING OIL

The engine oil should be changed at the recommended intervals, in line with manufacturer's instructions. Refer to the *Engine Manufacturer's Manual*.

ENGINE LUBRICATING OIL SPECIFICATION

Refer to the *Engine Manufacturer's Manual*.

ENGINE OIL FILTER ELEMENT

The engine oil filter element should be changed at the recommended intervals, in line with manufacturer's instructions. Refer to the *Engine Manufacturer's Manual*.

PUMP OIL

The pump oil should be inspected daily for contamination and replaced every six months with a reputable general purpose oil.

Note: Should the oil level increase and/or develop a *milky* appearance then this indicates a possible mechanical seal failure. Drain the oil and flush. Refill the pump with oil and run for a couple of hours before re-checking. If the fault occurs frequently then refer the matter to your local *INGERSOLL-RAND* distributor or branch office, quoting the model and serial numbers. If the oil level drops, this may indicate failure of lip seals.

**RUNNING GEAR WHEEL
BEARINGS**

Wheel bearings should be packed with grease every 12 months. The type of grease used should conform to specification *MIL-G-10924*.

6.10

MAINTENANCE Torque Values

MAINTENANCE

ONDERHOUD

WARTUNG

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		Nm	lbs. ft.			Nm	lbs. ft.
Pump shaft to flywheel	M12	79	58	Valve adaptor to supply casing	M10	28	21
Casing cover to engine	M10	43	32	Adaptor top to valve adaptor	M10	28	21
Seal plate to casing cover	M10	43	32	Check valve to supply casing	M12	53	39
Seal plate adjusting screws	M10	43	32	Discharge adaptor to supply casing	M10	28	21
Impeller nut	M30	149	110	Discharge connector to discharge adaptor	M10	28	21
Supply casing to casing cover	M10	43	32	Supply connector to supply casing	M16	130	96
Wheel nuts	1/2" U.N.F.	81-100	60-74	Running gear to chassis	M12	72-85	53-63



USE ONLY GENUINE INGERSOLL-RAND PARTS

N'UTILISER QUE LES VERITABLES PIECES DETACHEES INGERSOLL-RAND

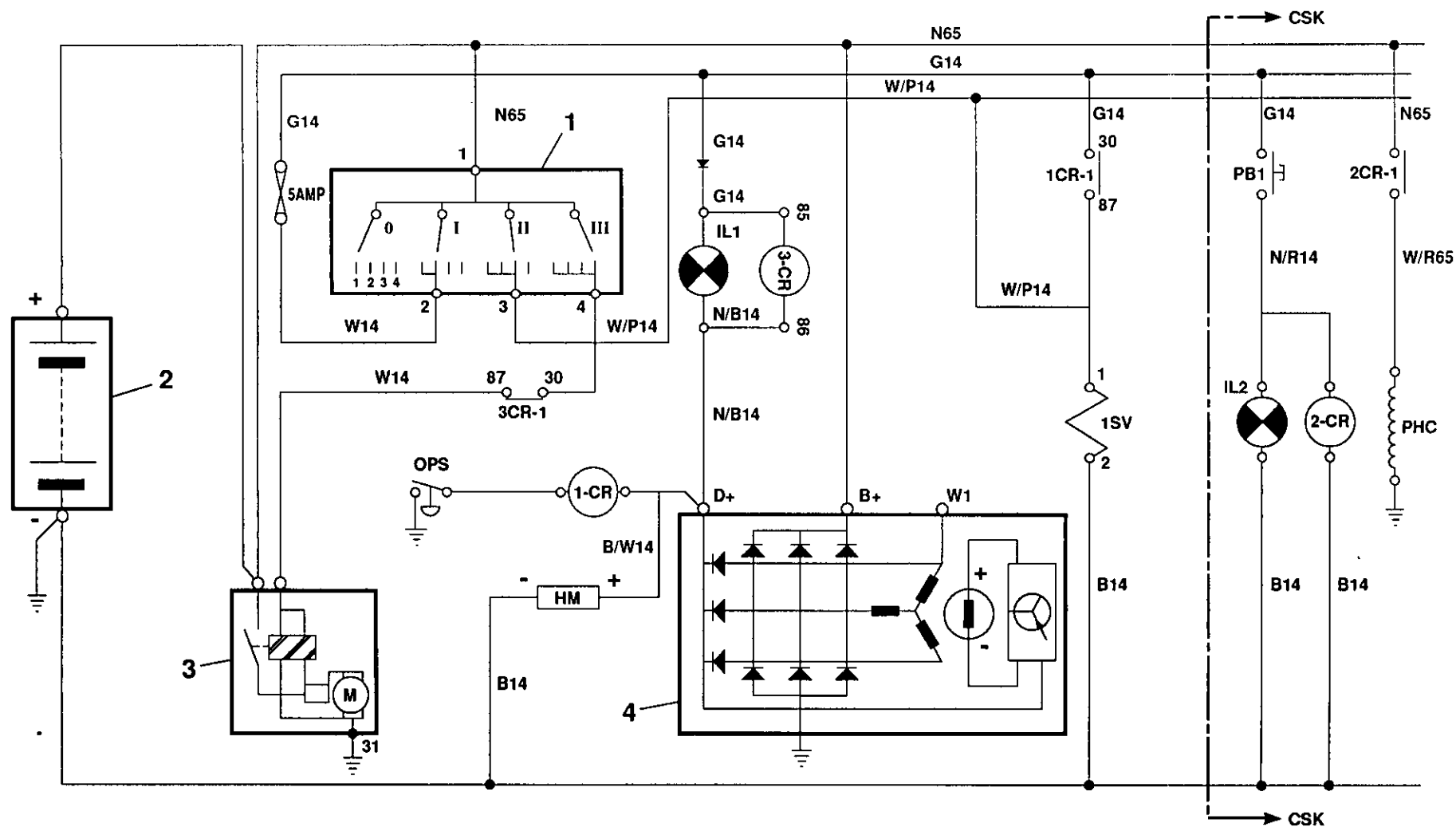
GEBRUIK ALLEEN ORIGINELE ONDERDELEN VAN INGERSOLL-RAND

NUR ORIGINAL-INGERSOLL-RAND-ERSATZTEILE VERWENDEN

7.0

ELECTRICAL SYSTEM

V-4



KEY

1	Start switch
2	Battery 12 Volt
3	Starter 2.2 kW
4	Alternator
OPS	Oil pressure switch
1-CR	Relay, safety shut-down
2-CR*	Relay, cold start
3-CR	Relay, start inhibit
HM	Hour meter
IL1	Lamp, alternator charge
IL2*	Lamp, cold start
PB1	Push button, cold start
1SV	Solenoid, fuel
PHC	Pre-heat coil
*CSK	Cold start kit (optional)

B	Black
B/W	Black/White
G	Green
G/Y	Green/Yellow
L/B	Light Green/Black
N	Brown
N/B	Brown/Black
N/R	Brown/Red
W	White
W/N	White/Brown
W/P	White/Purple
W/R	White/Red

8.0

FAULT FINDING

V-4

FAULT	CAUSE	CHECK AND REMEDY
Engine fails to start	Low battery charge Bad earth connection Loose wire	Check fan belt tension, battery and cables. Check earth cables, clean as required. Locate and make connection good.
Engine starts but will not run or engine shuts down prematurely	Loose light bulb Low oil pressure Safety shut-down system in operation Fuel starvation Electrical fault	Check that all lights are lit when power ignition is switched on. Check all lights are extinguished when starter is operated. Check oil level and oil filter. Check safety shut-down switches and valves. Check fuel level and fuel system components Test electrical circuits
Engine speed too low	Blocked fuel filter Blocked air filter	Check fuel filter if engine emits fumes. Check air filter and replace if necessary.
Engine speed too high	Blocked suction and/or discharge pipe	Check and clear suction filter and outlet of discharge pipe.
Refer also to the <i>Engine Manufacturers Manual</i>		
Pump will not prime or primes slowly	Suction hose blocked Suction hose leaking Discharge non-return valve not sealing Float valve not operating Faulty vacuum pump	Check and clear suction hose and strainer. Check suction hose and repair any leaks. Check for correct operation and and rectify if necessary Check for correct operation and and rectify if necessary Check for correct operation and and rectify if necessary
Low flow of water	Suction hose blocked Discharge hose blocked Non-return valve blocked	Check and clear suction hose and strainer. Check and clear discharge hose. Check and clear non-return valve.
Seal oil chamber over-full	Mechanical seal failure	Replace mechanical seal
Seal oil chamber empty	Drain plug loose Lip seal failure	Tighten drain plug Replace lip seals

INGERSOLL-RAND

V-4

PORTABLE PUMP

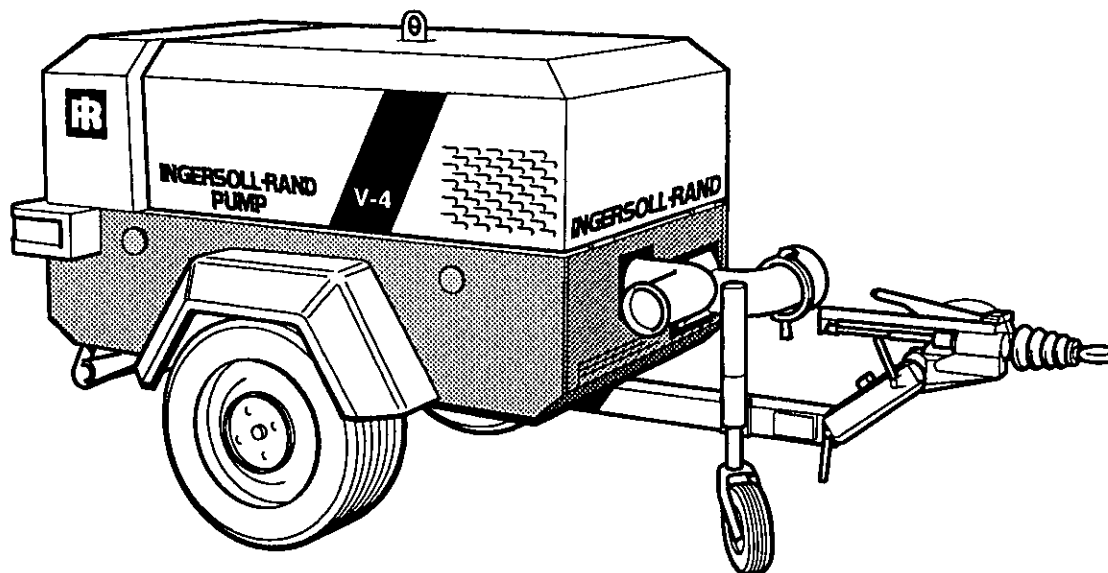
DEUTZ ENGINE

PARTS CATALOGUE

CATALOGUE DE PIÈCES DÉTACHÉE

ONDERDELENKATALOGUS

ERSATZTEILLISTE

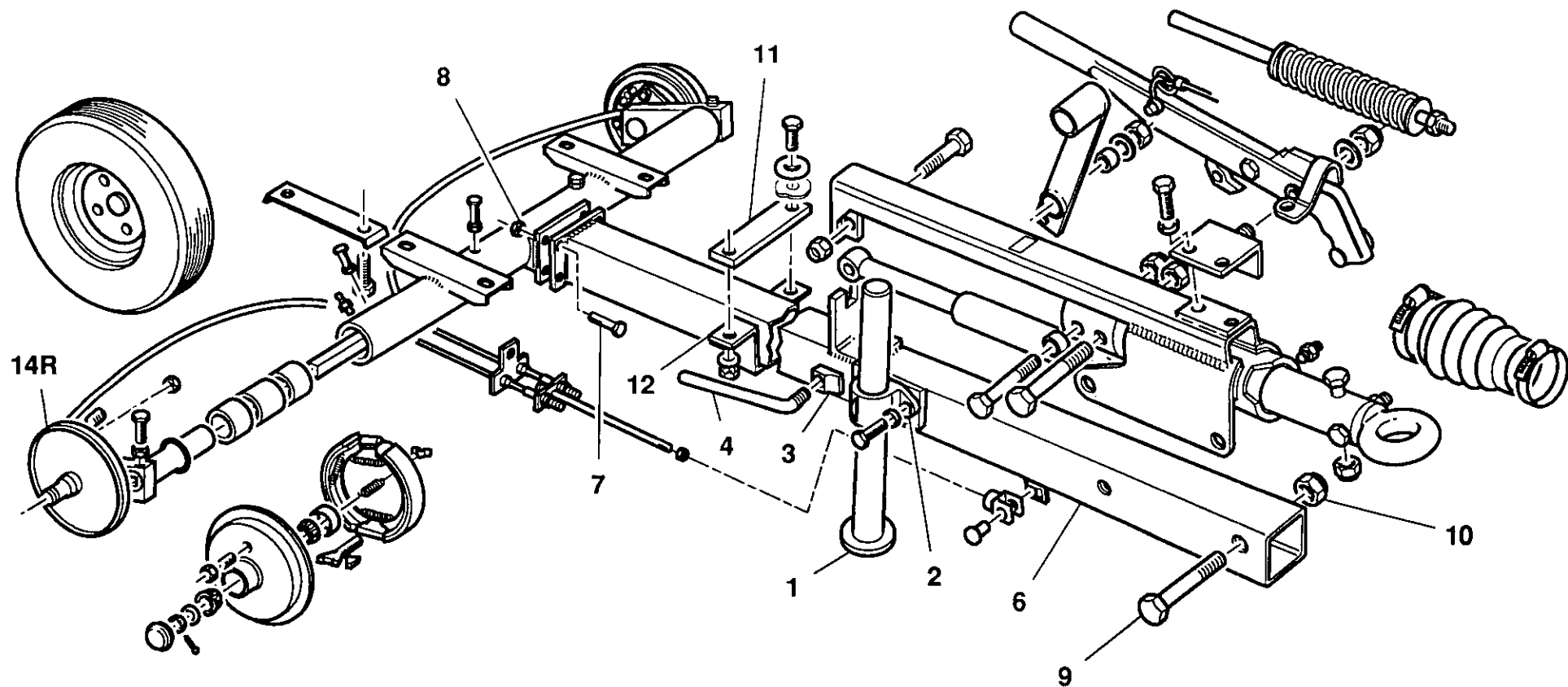


T1600

10.0.0

RUNNING GEAR FIXED HEIGHT

V-4

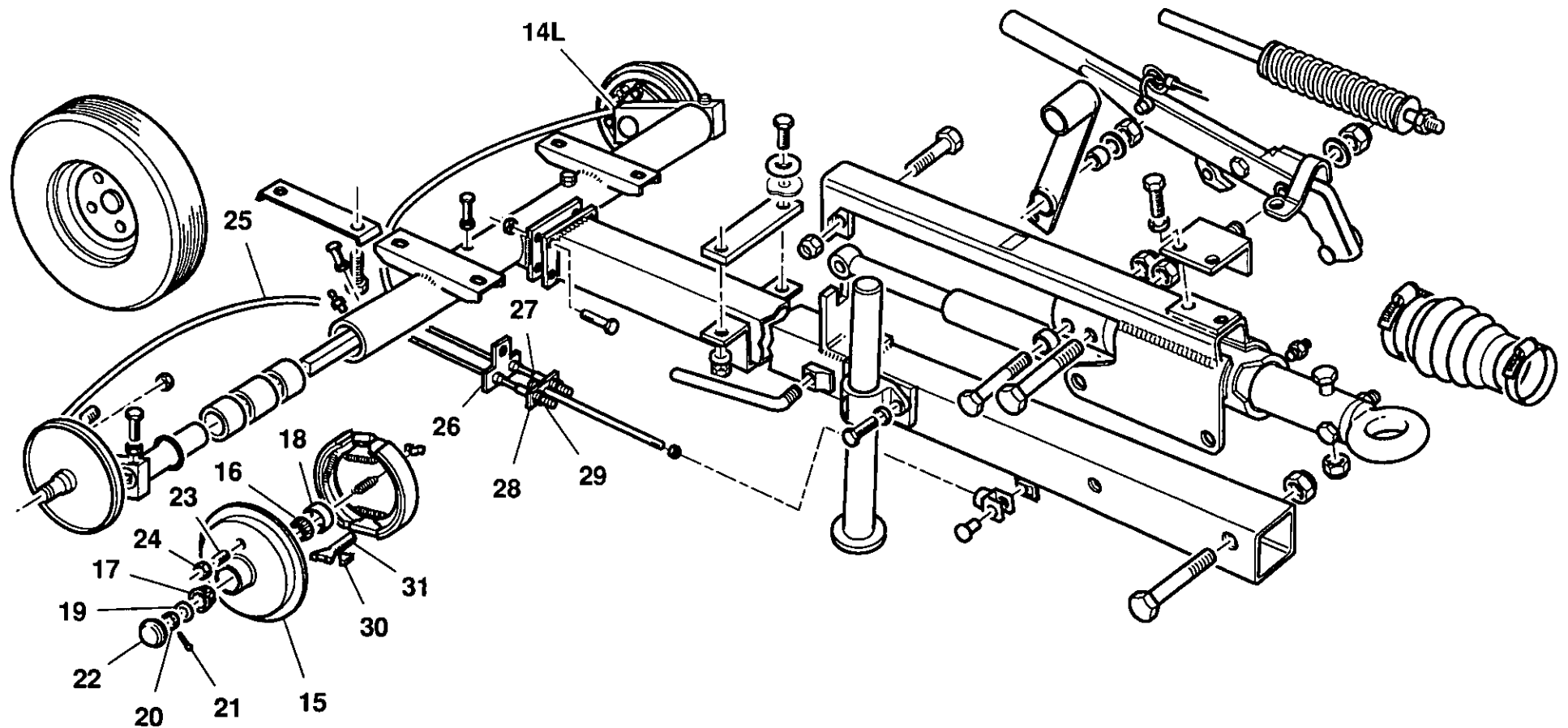


T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1-5	92762962	1	Prop stand assembly			
	1	92763002	1	Prop stand			
	2	92762996	1	Bracket	Support	Beugel	Stützblech
	3	92762970	1	Pad			
	4	92762988	1	Handle			
	5	-					
	6-102	92899582	1	Running gear assembly			
	6	92901859	1	Tube, towbar			
	7	95252524	4	Setscrew	Vis	Intelschroef	Sartschrause
	8	92022763	4	Nut	Ecrou	Moer	Mutter
	9	92870641	2	Bolt		Bout	
	10	92881929	2	Nut	Ecrou	Moer	Mutter
	11	92901784	1	Pad			
	12	92901776	1	Clamp	Collier	Klem	Schelle
	13	-					
	14-60	92901578	1	Axle tube assembly			
	14R-45	92901586	1	Swinging arm assembly R/hand			
	14L-45	92901602	1	Swinging arm assembly L/hand			
	14R	92901594	1	Swinging arm R/hand			
Revision 00 07/92							
10.0.1 RUNNING GEAR FIXED HEIGHT				PIÈCES DÉTACHÉES	ONDERDELEN- KATALOGUS	ERSATZTEILE	

10.0.2 RUNNING GEAR FIXED HEIGHT

V-4



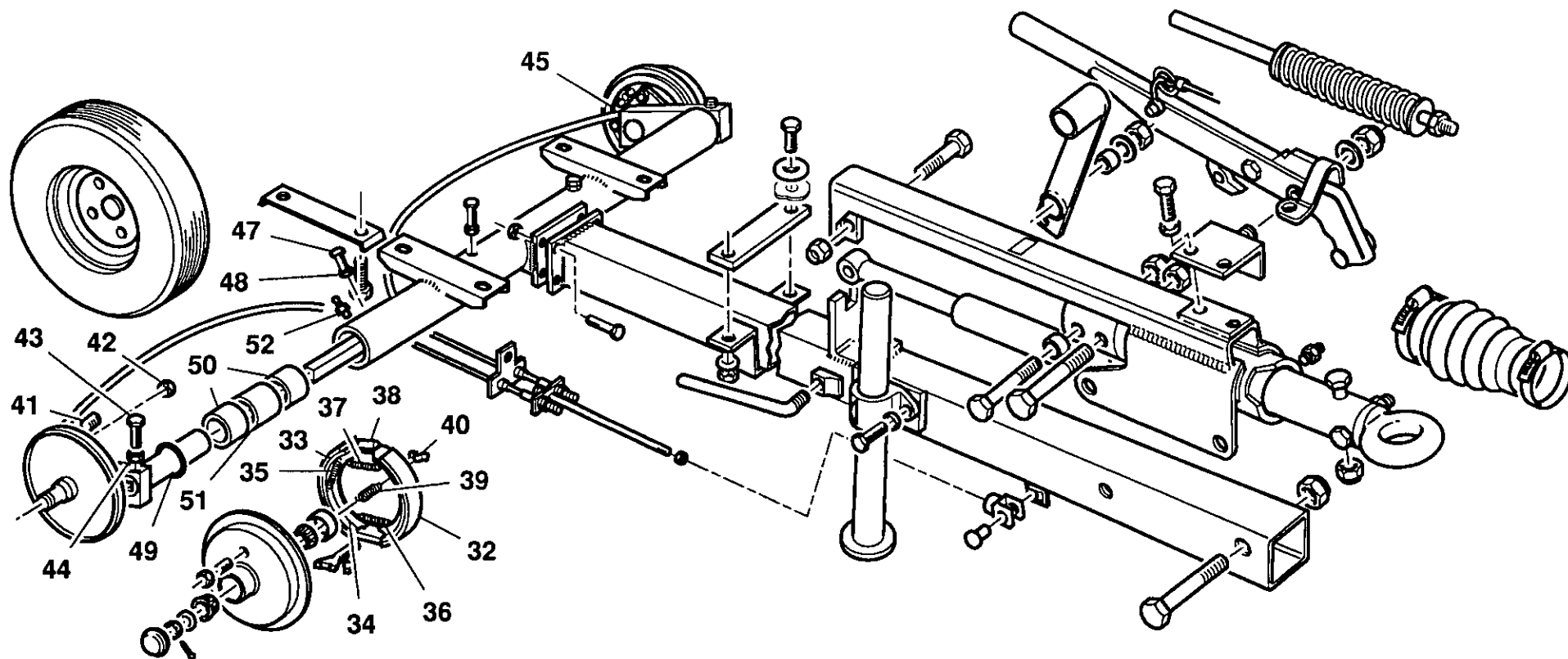
T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	14L	92901610	1	Swinging arm L/hand			
	15	92793405	1	Hub			
	16	92074350	1	Bearing			
	17	92102540	1	Bearing			
	18	92074384	1	Seal			
	19	92053974	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	20	95108072	1	Nut	Ecrou	Moer	Mutter
	21	95002697	1	Pin			
	22	92793413	1	Cap			
	23	92102607	4	Stud	Vis de tour	Borgbout	Bolzen
	24	92102599	4	Nut	Ecrou	Moer	Mutter
	25	92687573	1	Cable			
	26	92055441	1	Plate			
	27	95076774	3	Nut	Ecrou	Moer	Mutter
	28	92055433	1	Plate			
	29	92304518	4	Nut	Ecrou	Moer	Mutter
	30	92055706	2	Adjuster			
	31	92055698	1	Bolt		Bout	
Revision 00 07/92							
10.0.3				RUNNING GEAR FIXED HEIGHT	PIÈCES DÉTACHÉES ONDERDELEN- KATALOGUS	ERSATZTEILE	

10.0.4

RUNNING GEAR FIXED HEIGHT

V-4



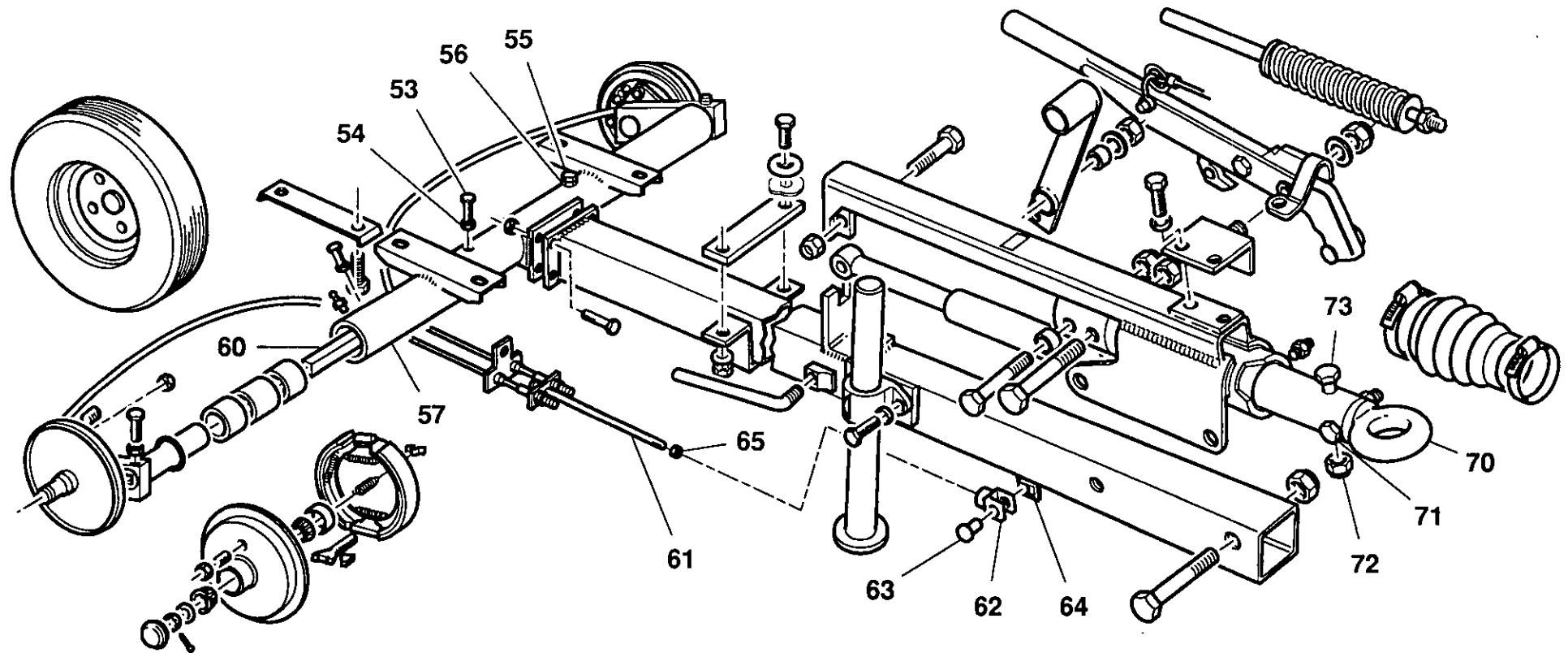
T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	32	92053487	1	Shoe			
	33	92053495	1	Shoe			
	34	92053776	2	Carrier			
	35	92053826	2	Spring	Ressort	Veer	Feder
	36	92053842	1	Spring	Ressort	Veer	Feder
	37	92053834	1	Spring	Ressort	Veer	Feder
	38	92053768	1	Expander			
	39	92053800	1	Spring	Ressort	Veer	Feder
	40	92053818	1	Saddle			
	41	92055680	1	Plug	Bouchon	Plug	Stopfen
	42	92055714	2	Nut	Ecrou	Moer	Mutter
	43	92102508	2	Setscrew	Vis	Intelschroef	Sartschrause
	44	95076790	2	Nut	Ecrou	Moer	Mutter
	45	92680669	1	Holder, cable			
	46	—					
	47	—					
	48	—					
	49	—		'O' Ring	Joint torique	'O' Ring	'O' Ring
	50	92102672	4	Bush	Palier	Bus	Hülse
	51	92102664	2	Spacer			
	52	—		Nipple		Nippel	
Revision 00 07/92							
10.0.5				RUNNING GEAR	PIÈCES DÉTACHÉES	ONDERDELEN-	ERSATZTEILE
				FIXED HEIGHT		KATALOGUS	

10.0.6

RUNNING GEAR FIXED HEIGHT

V-4



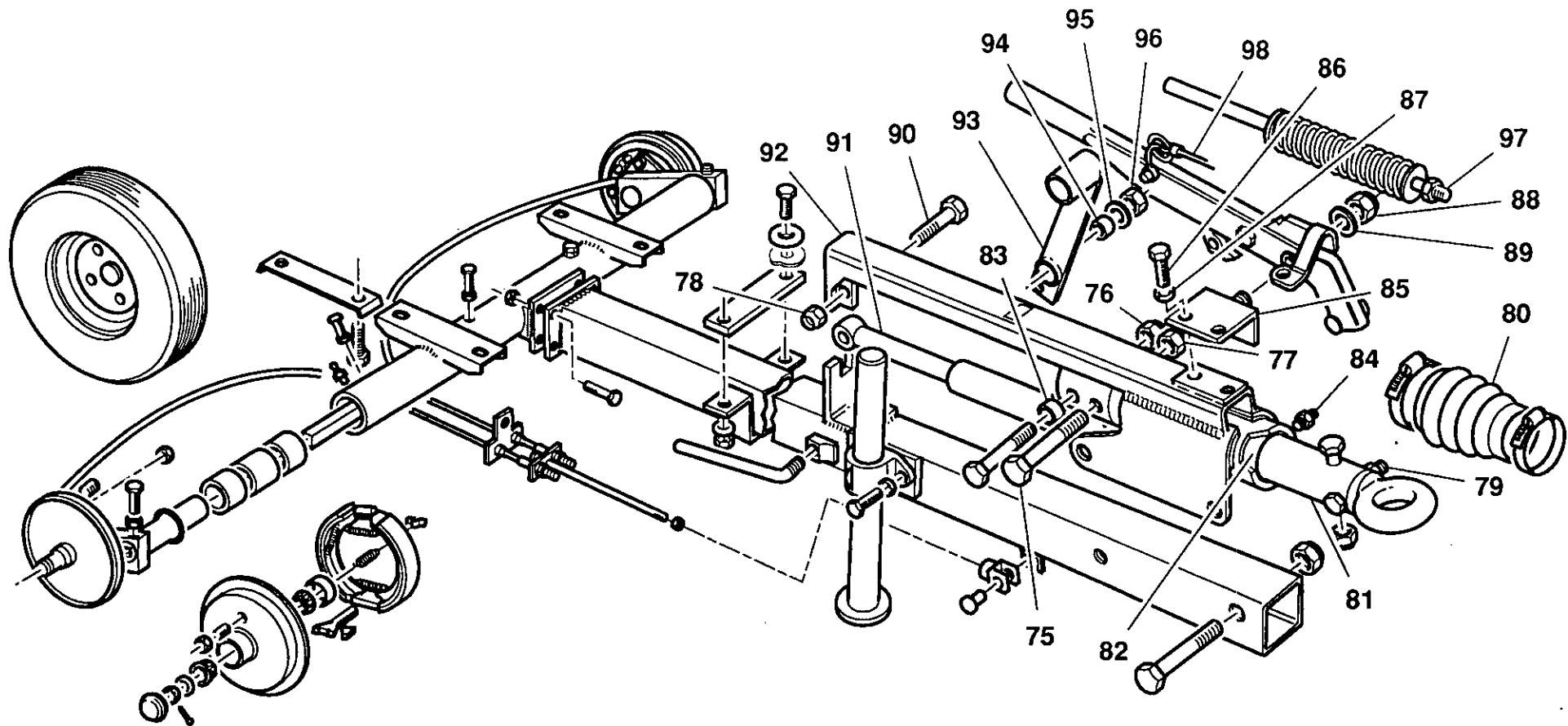
T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	53	92102508	1	Setscrew	Vis	Intelschroef	Sartschrause
	54	95076790	1	Locknut	Ecrou	Borgmoer	
	55	92102508	1	Setscrew	Vis	Intelschroef	Sartschrause
	56	95076790	1	Locknut	Ecrou	Borgmoer	
	57	92901578	1	Tube, axle			
	58	—					
	59	—					
	60	92102680	2	Bar, torsion			
	61	92901933	1	Rod			
	62	92102573	1	Clevis			
	63	92102565	1	Pin			
	64	92102557	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	65	95076774	1	Nut	Ecrou	Moer	Mutter
	66	—					
	67	—					
	68	—					
	69	—					
	70-103	92901925	1	Coupling assembly			
	70	92044205	1	Eye			
	71	92053867	1	Bolt		Bout	
	72	92022763	1	Nut	Ecrou	Moer	Mutter
	73	92053867	1	Bolt		Bout	
	74	95466330	1	Bolt		Bout	
Revision 00 07/92							
10.0.7				RUNNING GEAR FIXED HEIGHT	PIÈCES DÉTACHÉES	ONDERDELEN- KATALOGUS	ERSATZTEILE

10.0.8

RUNNING GEAR FIXED HEIGHT

V-4



T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	75	92870740	1	Bolt		Bout	
	76	92022540	1	Nut	Ecrou	Moer	Mutter
	77	92022763	1	Nut	Ecrou	Moer	Mutter
	78	92022540	1	Nut	Ecrou	Moer	Mutter
	79	92022763	1	Nut	Ecrou	Moer	Mutter
	80	92055490	1	Cover			
	81	92687441	1	Shaft			
	82	92053628	2	Bush	Palier	Bus	Hülse
	83	92901719	1	Collar			
	84	92302058	2	Nipple		Nippel	
	85	92680701	1	Bracket	Support	Beugel	Stützblech
	86	92272343	2	Setscrew	Vis	Intelschroef	Sartschrause
	87	95081857	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	88	95077442	1	Locknut	Ecrou	Borgmoer	
	89	95094314	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	90	92053883	1	Bolt		Bout	
	91	92055557	1	Damper			
	92	92901735	1	Frame			
	93	92680636	1	Lever			
	94	92055581	1	Bush	Palier	Bus	Hülse
	95	95064697	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	96	95076790	1	Nut	Ecrou	Moer	Mutter
	97	92055623	1	Spring	Ressort	Veer	Feder
	98	92055631	1	Cable			

Revision 00
07/92

10.0.9 RUNNING GEAR FIXED HEIGHT

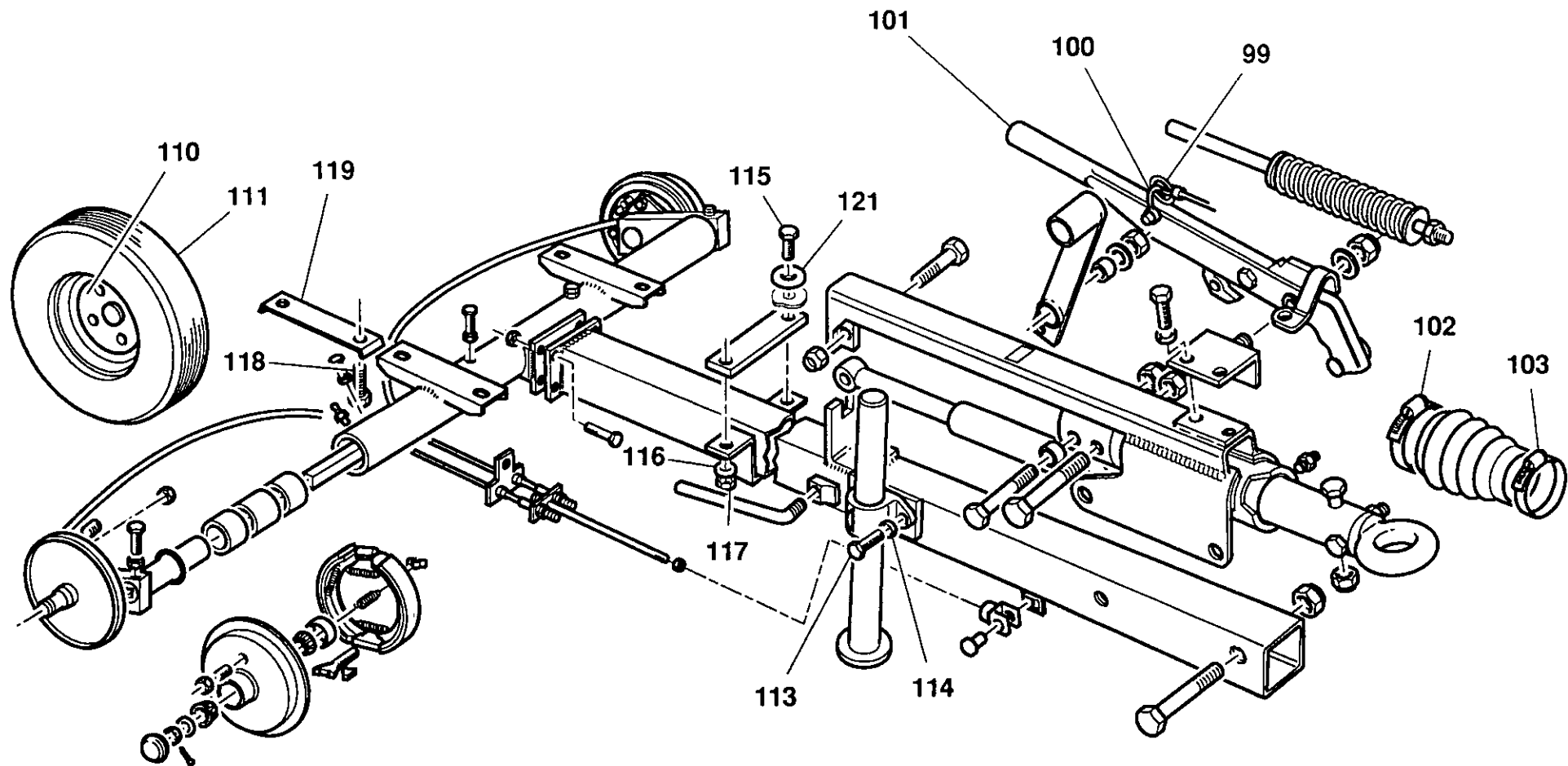
PIÈCES DÉTACHÉES

ONDERDELEN- KATALOGUS

ERSATZTEILE

10.0.10 RUNNING GEAR FIXED HEIGHT

V-4



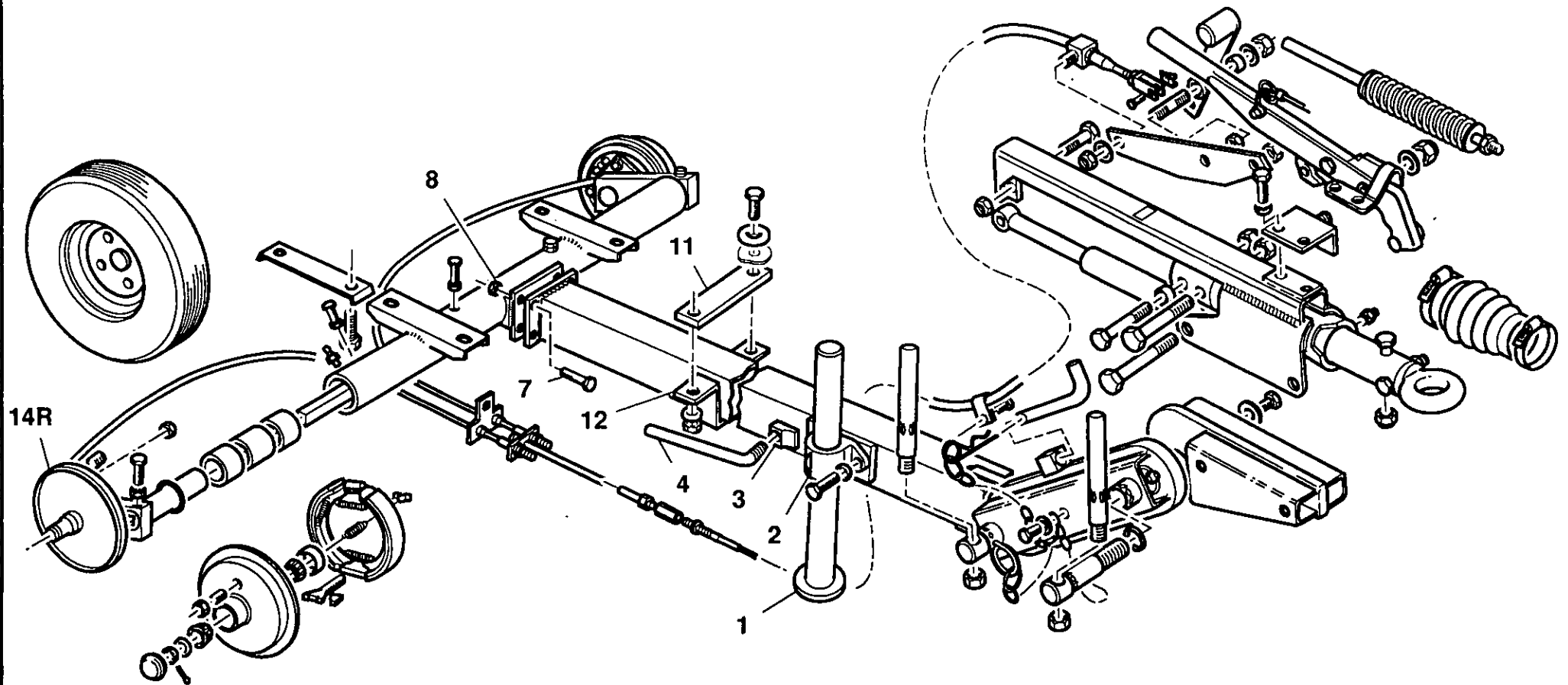
T1615
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	99	92055649	1	Ring			
	100	92055656	1	Shackle			
	101	92680693	1	Lever, handbrake			
	102	92870807	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	103	95220901	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	104	-					
	105	-					
	106	-					
	107	-					
	108	-					
	109	-					
	110-112	92895408	2	Wheel & tyre assembly			
	110	92259563	1	Wheel			
	111	92899574	1	Tyre			
	112	-					
	113	90103185	2	Setscrew	Vis	Intelschroef	Sartschrause
	114	92304682	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	115	92441310	2	Bolt		Bout	
	116	92061506	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	117	92304575	2	Locknut	Ecrou	Borgmoer	
	118	90103185	4	Setscrew	Vis	Intelschroef	Sartschrause
	119	92790831	2	Washer, tab	Rondelle de bloquage	Borgplaat	Sicherungsblech
	120	-					
Revision 00 07/92	121	92923432	2	Washer	Rondelle	Ring mo	Unterlegscheibe

10.0.11 RUNNING GEAR FIXED HEIGHT

10.0.12 RUNNING GEAR VARIABLE HEIGHT

V-4

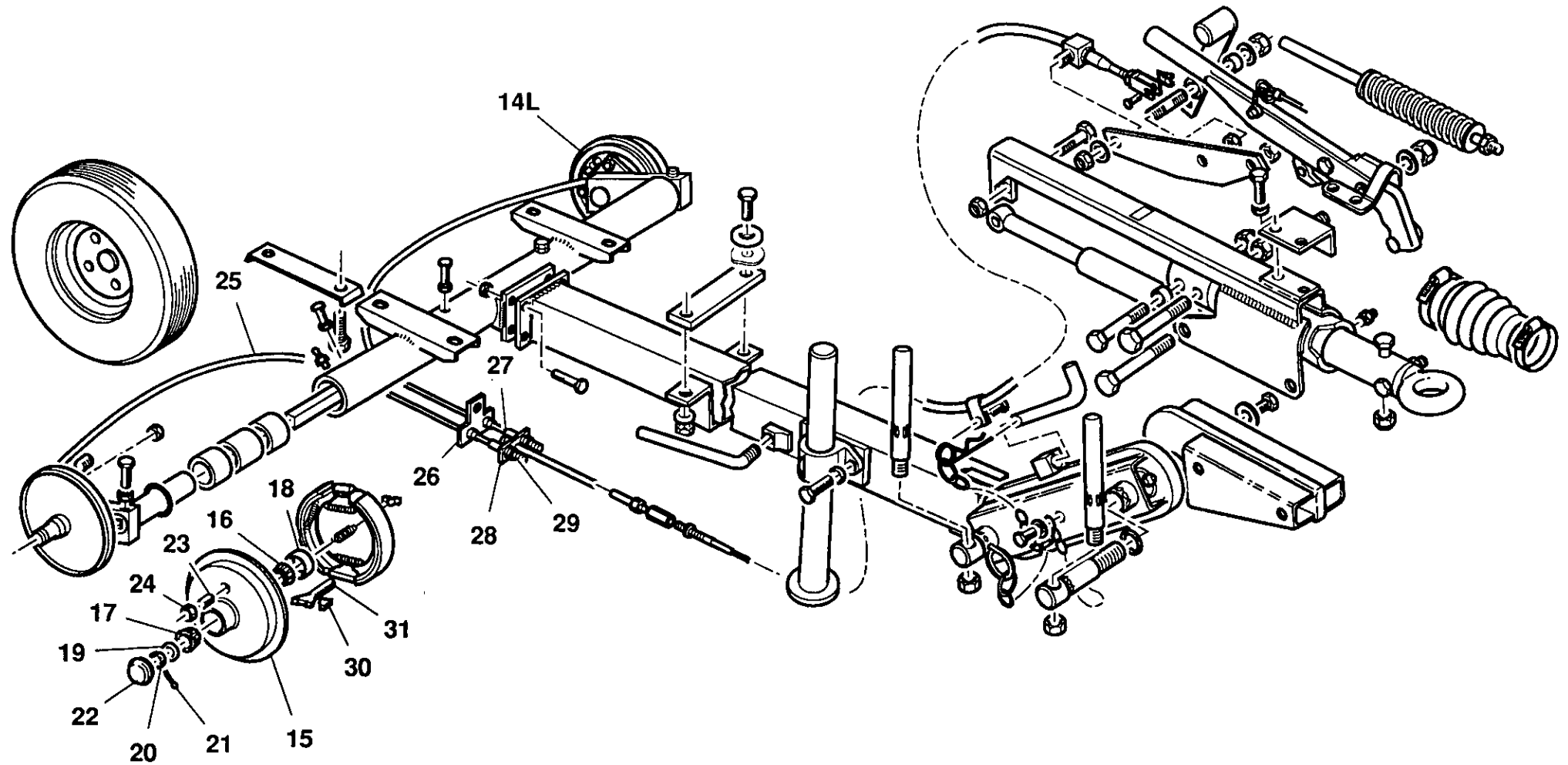


T1616
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1-5	92762962	1	Prop stand assembly			
	1	92763002	1	Prop stand			
	2	92762996	1	Bracket	Support	Beugel	Stützblech
	3	92762970	1	Pad			
	4	92762988	1	Handle			
	5	-					
	6-129(D)	92789338	1	Running gear assembly			
	6-129(F)	92782762	1	Running gear assembly			
	6	92901859	1	Tube, towbar			
	7	95252524	4	Setscrew	Vis	Intelschroef	Sartschrause
	8	92022763	4	Nut	Ecrou	Moer	Mutter
	9	-		Bolt		Bout	
	10	-		Nut	Ecrou	Moer	Mutter
	11	92901784	1	Pad			
	12	92901776	1	Clamp	Collier	Klem	Schelle
	13	-					
	14-60	92901560	1	Axle tube assembly			
	14R-45	92901586	1	Swinging arm assembly R/hand			
	14L-45	92901602	1	Swinging arm assembly L/hand			
	14R	92901594	1	Swinging arm R/hand			
Revision 00 07/92							
10.0.13				RUNNING GEAR VARIABLE HEIGHT	PIÈCES DÉTACHÉES	ONDERDELEN- KATALOGUS	ERSATZTEILE

10.0.14 RUNNING GEAR VARIABLE HEIGHT

V-4

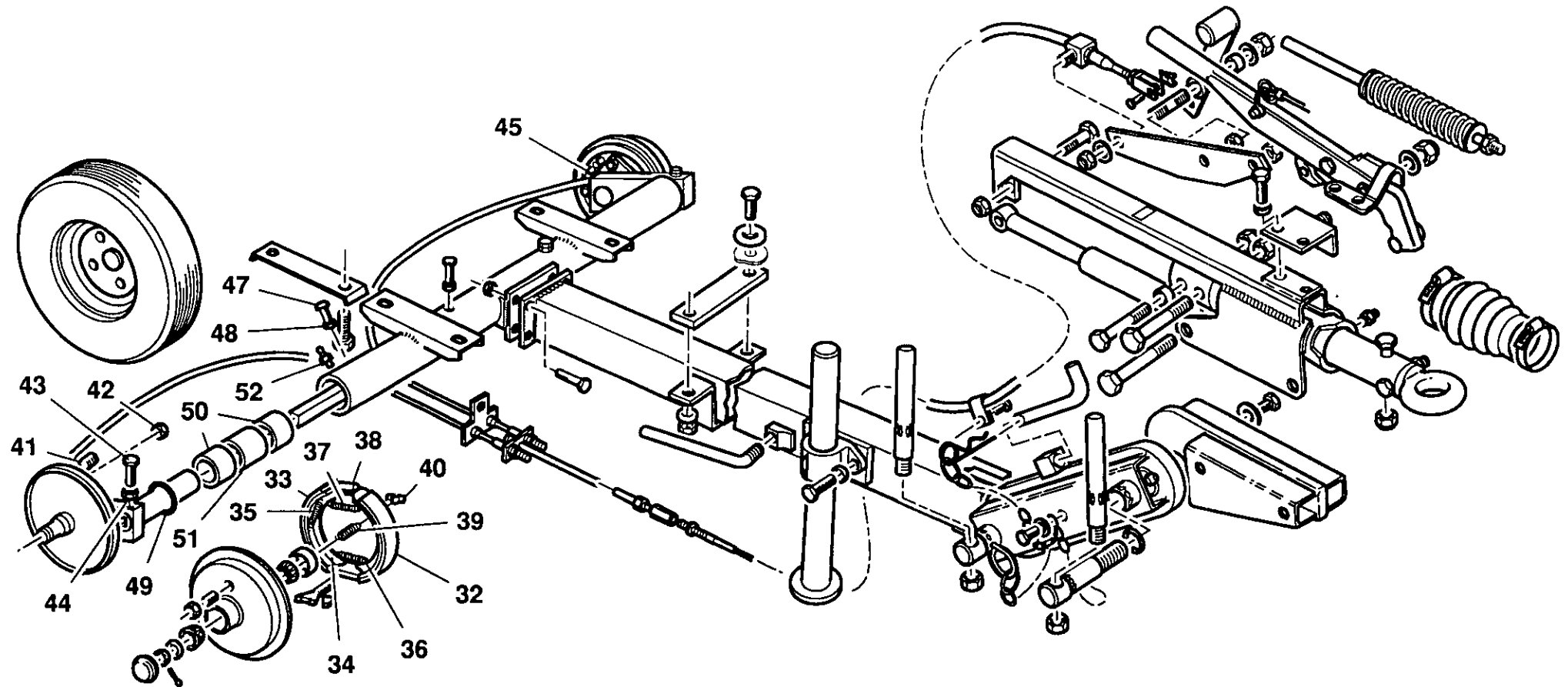


T1616
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	14L	92901610	1	Swinging arm L/hand			
	15	92793405	1	Hub			
	16	92074350	1	Bearing			
	17	92102540	1	Bearing			
	18	92074384	1	Seal			
	19	92053974	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	20	95108072	1	Nut	Ecrou	Moer	Mutter
	21	95002697	1	Pin			
	22	92793413	1	Cap			
	23	92102607	4	Stud	Vis de tour	Borgbout	Bolzen
	24	92102599	4	Nut	Ecrou	Moer	Mutter
	25	92687573	1	Cable			
	26	92055441	1	Plate			
	27	95076774	3	Nut	Ecrou	Moer	Mutter
	28	92055433	1	Plate			
	29	92304518	4	Nut	Ecrou	Moer	Mutter
	30	92055706	2	Adjuster			
	31	92055698	1	Bolt		Bout	
Revision 00 07/92							
10.0.15				RUNNING GEAR VARIABLE HEIGHT	PIÈCES DÉTACHÉES ONDERDELEN- KATALOGUS	ERSATZTEILE	

10.0.16 RUNNING GEAR VARIABLE HEIGHT

V-4

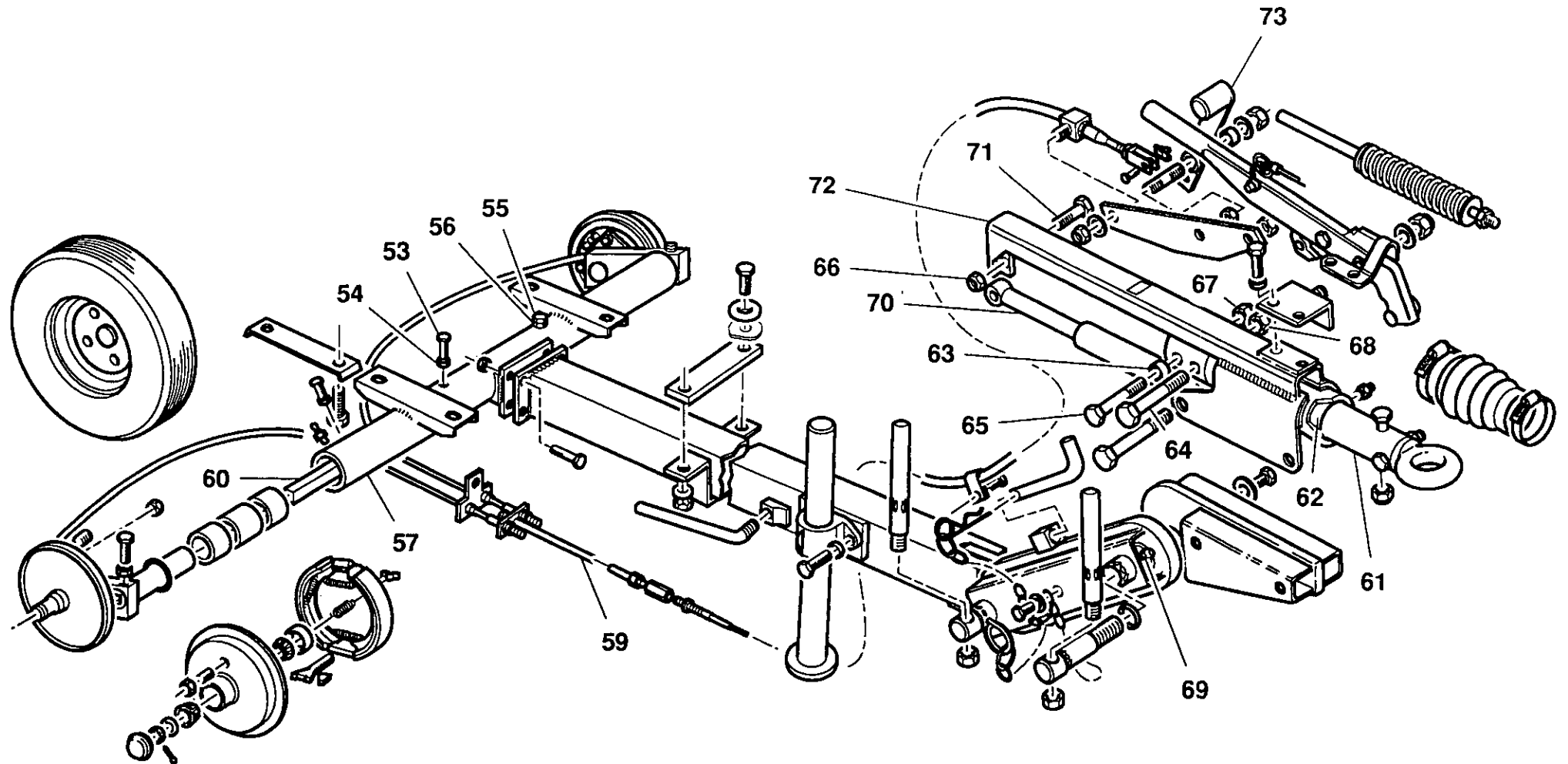


T1616
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	32	92053487	1	Shoe			
	33	92053495	1	Shoe			
	34	92053776	2	Carrier			
	35	92053826	2	Spring	Ressort	Veer	Feder
	36	92053842	1	Spring	Ressort	Veer	Feder
	37	92053834	1	Spring	Ressort	Veer	Feder
	38	92053768	1	Expander			
	39	92053800	1	Spring	Ressort	Veer	Feder
	40	92053818	1	Saddle			
	41	92055680	1	Plug	Bouchon	Plug	Stopfen
	42	92055714	2	Nut	Ecrou	Moer	Mutter
	43	92102508	2	Setscrew	Vis	Intelschroef	Sartschrause
	44	95076790	2	Nut	Ecrou	Moer	Mutter
	45	92680669	1	Holder, cable			
	46	—					
	47	—					
	48	—					
	49	—		'O' Ring	Joint torique	'O'Ring	'O'Ring
	50	92102672	4	Bush	Palier	Bus	Hülse
	51	92102664	2	Spacer			
	52	—		Nipple		Nippel	
Revision 00 07/92							
10.0.17				RUNNING GEAR VARIABLE HEIGHT	PIÈCES DÉTACHÉES ONDERDELEN- KATALOGUS	ERSATZTEILE	

10.0.18 RUNNING GEAR VARIABLE HEIGHT

V-4



T1616
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	53	92102508	1	Setscrew	Vis	Intelschroef	Sartschrause
	54	95076790	1	Locknut	Ecrou	Borgmoer	
	55	92102508	1	Setscrew	Vis	Intelschroef	Sartschrause
	56	95076790	1	Locknut	Ecrou	Borgmoer	
	57	92901578	1	Tube, axle			
	58	-					
	59	92901768	1	Rod			
	60	92102680	2	Bar, torsion			
	61-99	92901701	1	Coupling assembly			
	61	92687441	1	Shaft			
	62	92053628	1	Bush	Palier	Bus	Hülse
	63	92907219	1	Collar			
	64	95466330	1	Bolt		Bout	
	65	92870740	1	Bolt		Bout	
	66	92022540	1	Locknut	Ecrou	Borgmoer	
	67	92022540	1	Locknut	Ecrou	Borgmoer	
	68	92022763	1	Locknut	Ecrou	Borgmoer	
	69	92302058	2	Nipple		Nippel	
	70	92055557	1	Damper			
	71	92053883	1	Bolt		Bout	
	72	92901727	1	Frame			
	73	92680636	1	Lever			

Revision 00
07/92

10.0.19 RUNNING GEAR
VARIABLE HEIGHT

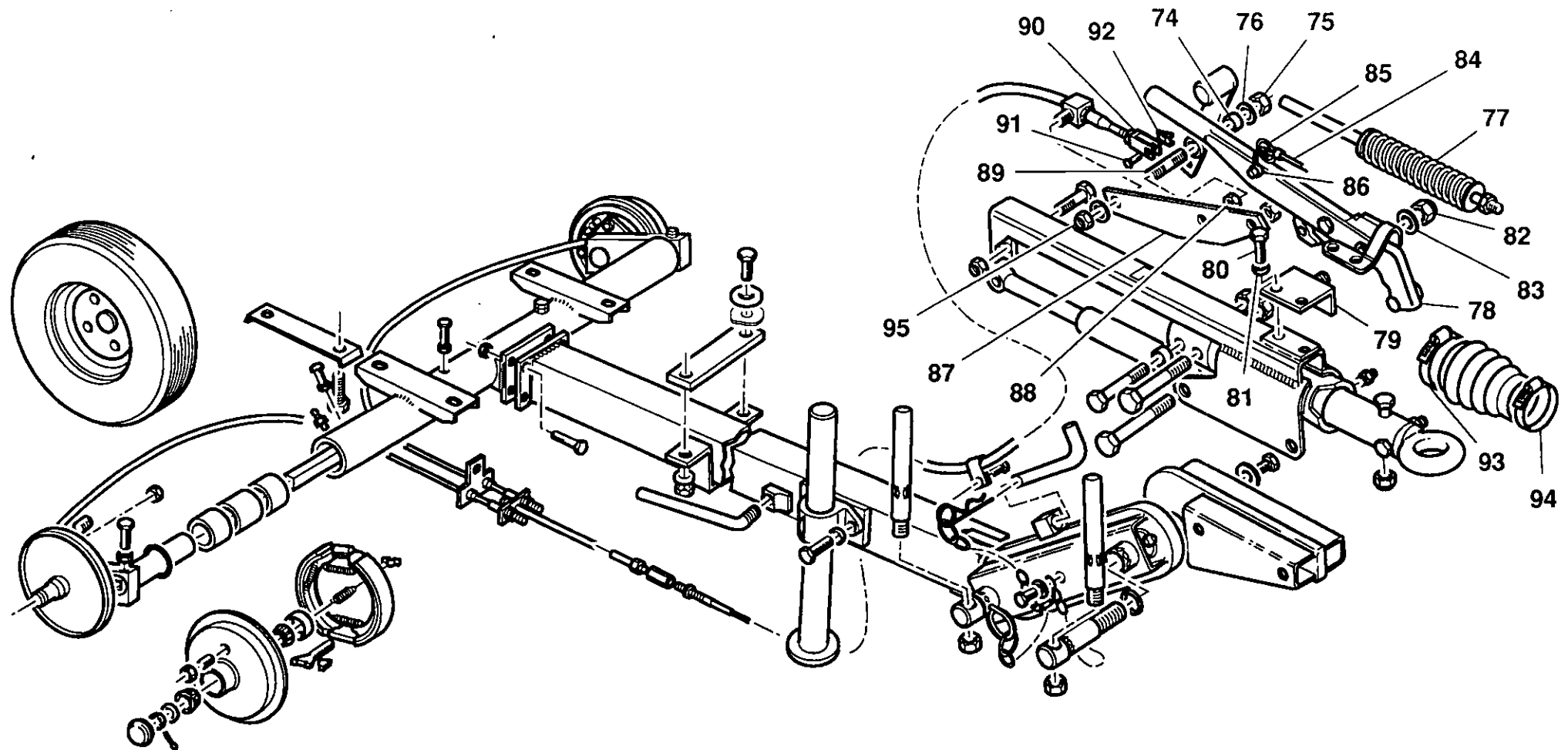
PIÈCES DÉTACHÉES

ONDERDELEN-
KATALOGUS

ERSATZTEILE

10.0.20 RUNNING GEAR VARIABLE HEIGHT

V-4



T1616
Revision 00
07/92

	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	74	92055581	1	Bush	Palier	Bus	Hülse
	75	95076790	1	Locknut	Ecrou	Borgmoer	
	76	95064697	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	77	92055623	1	Spring	Ressort	Veer	Feder
	78	92680693	1	Lever, handbrake			
	79	92680701	1	Bracket	Support	Beugel	Stützblech
	80	92272343	2	Screw	Vis	Schroef	Schraube
	81	95081857	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	82	95077442	1	Locknut	Ecrou	Borgmoer	
	83	95094314	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	84	92055631	1	Cable			
	85	92055649	1	Ring			
	86	92055656	1	Shackle			
	87	92754563	1	Bracket	Support	Beugel	Stützblech
	88	95076790	1	Nut	Ecrou	Moer	Mutter
	89	92754589	1	Pin			
	90	92754548	1	Clevis			
	91	92102565	1	Pin			
	92	92102557	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	93	92870807	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	94	95220901	1	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	95	92022763	1	Locknut	Ecrou	Borgmoer	
	96	—					

Revision 00
07/92

10.0.21 RUNNING GEAR VARIABLE HEIGHT

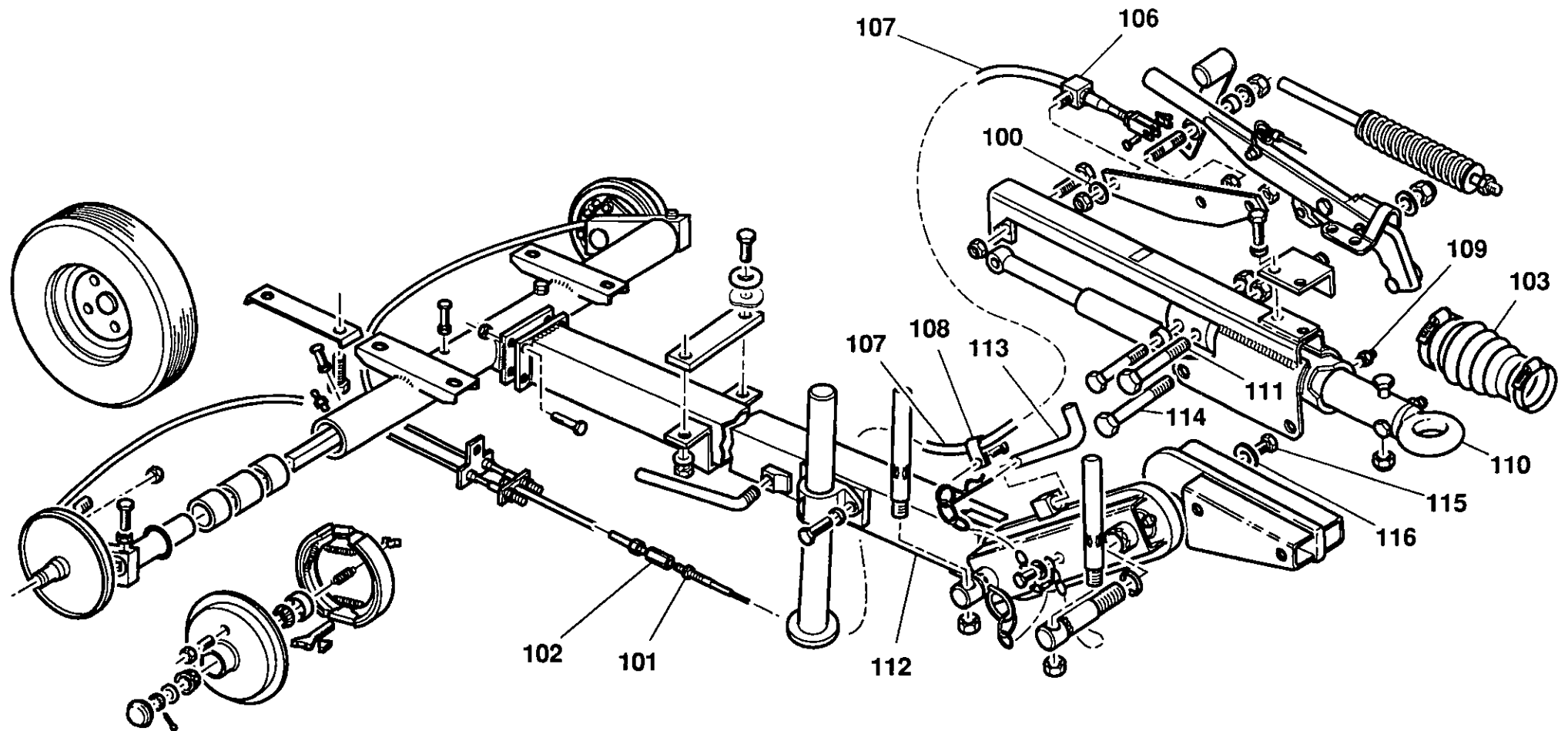
PIÈCES DÉTACHÉES

ONDERDELEN-
KATALOGUS

ERSATZTEILE

10.0.22 RUNNING GEAR VARIABLE HEIGHT

V-4



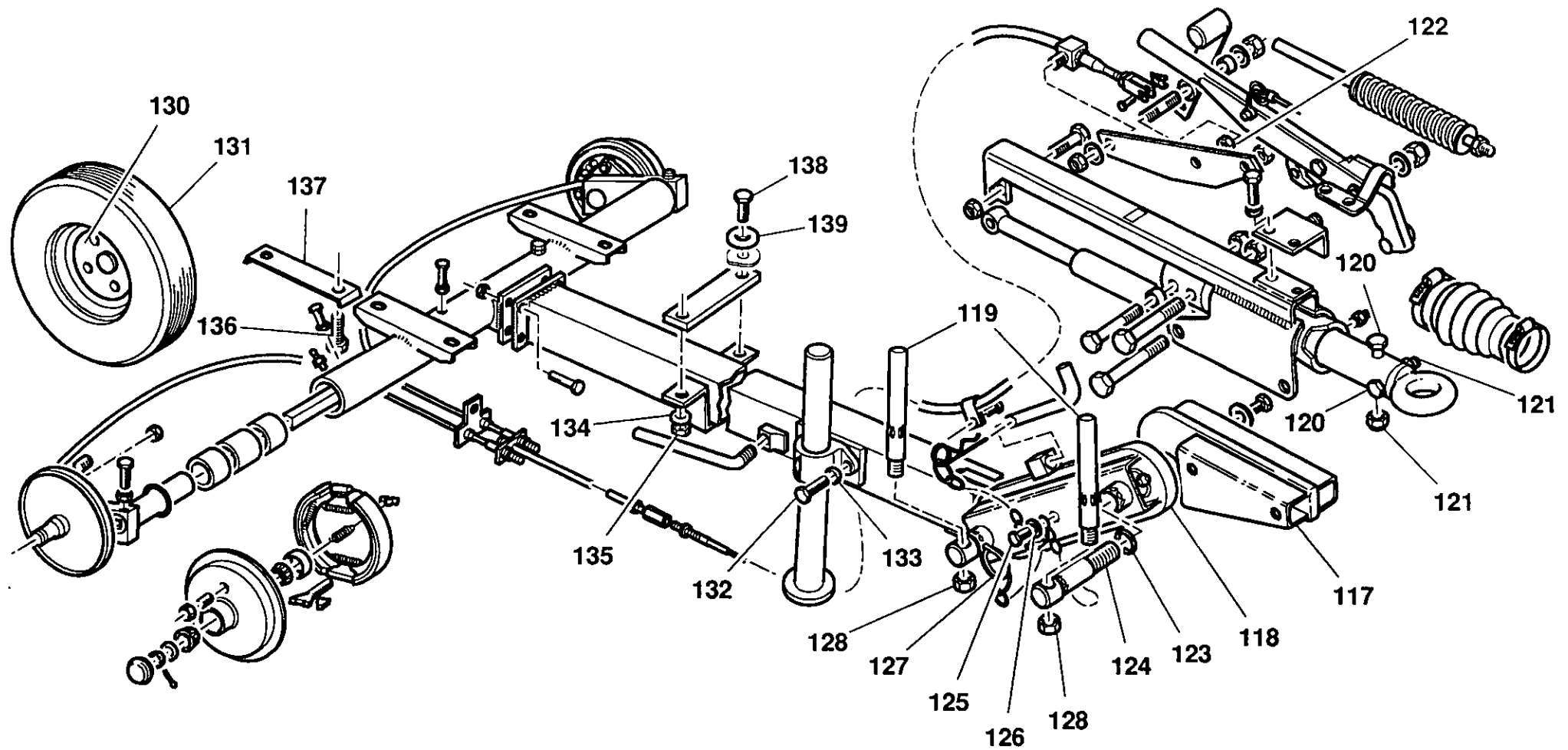
T1616
Revision 00
07/92

Revision 00
07/92

10.0.23 RUNNING GEAR VARIABLE HEIGHT

10.0.24 RUNNING GEAR VARIABLE HEIGHT

V-4



T1616
Revision 00
07/92

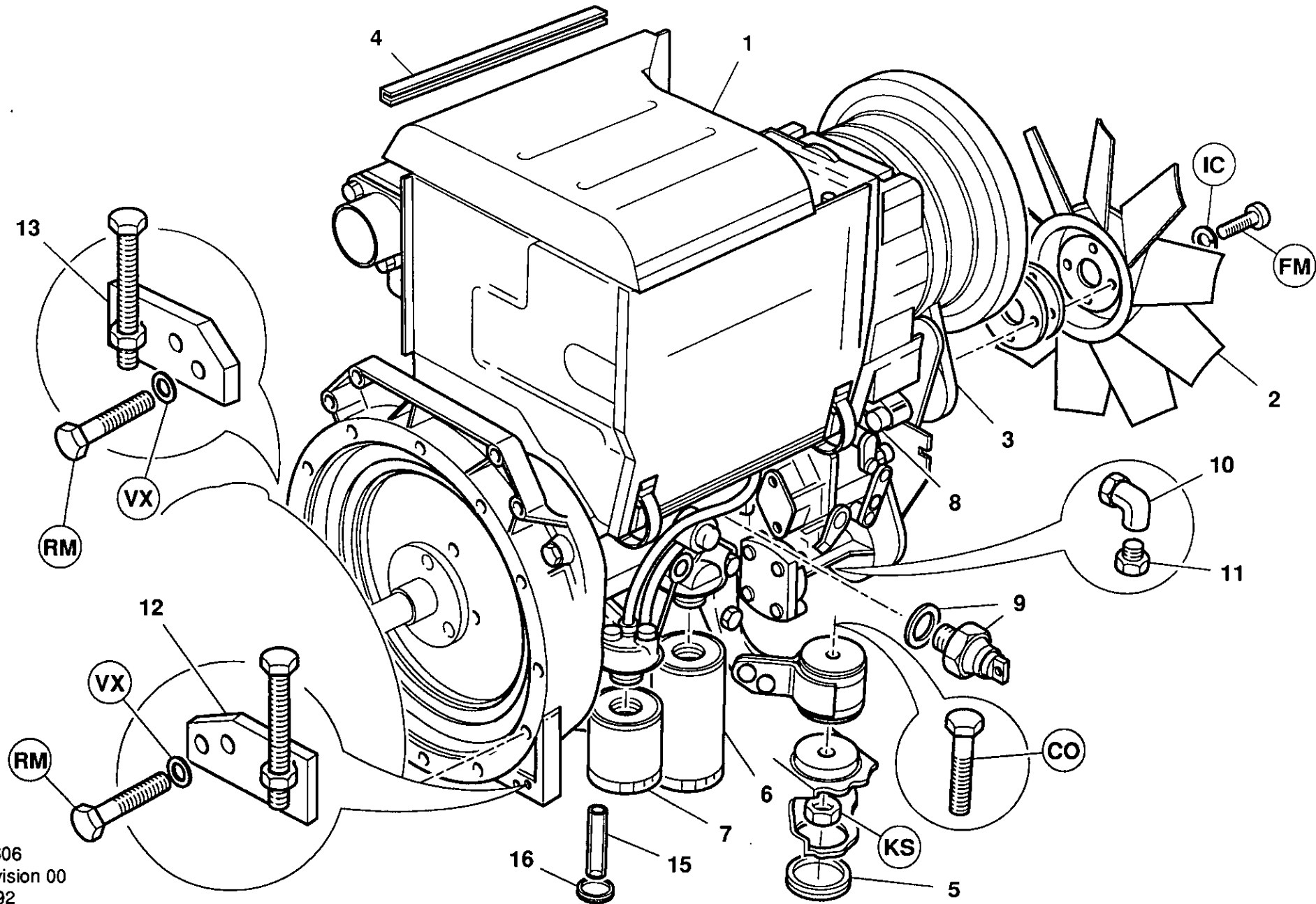
	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	117	92870765	1	Mount			
	118	92901693	1	Link			
	119	92848639	2	Handle			
	120	92053867	2	Bolt		Bout	
	121	92022763	2	Nut	Ecrou	Moer	Mutter
	122	92881929	2	Nut	Ecrou	Moer	Mutter
	123	92870708	2	Collar			
	124	92870698	2	Pin			
	125	92756857	1	Screw	Vis	Schroef	Schraube
	126	95064671	1	Washer	Rondelle	Ring mo	Unterlegscheibe
	127	92754621	1	Chain & pin			
	128	92848647	2	Nut	Ecrou	Moer	Mutter
	129	-					
	130-131	92895408	2	Wheel & tyre assembly			
	130	92259563	1	Wheel			
	131	92899574	1	Tyre			
	132	92398619	2	Setscrew	Vis	Intelschroef	Sartschrause
	133	92304575	2	Locknut	Ecrou	Borgmoer	
	134	92061506	2	Washer	Rondelle	Ring mo	Unterlegscheibe
	135	92304575	2	Locknut	Ecrou	Borgmoer	
	136	90103185	4	Screw	Vis	Schroef	Schraube
	137	92790831	2	Washer, tab	Rondelle de bloquage	Borgplaat	Sicherungblech
	138	92441310	2	Bolt		Bout	
	139	92923432	2	Washer	Rondelle	Ring mo	Unterlegscheibe

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10.0.25 RUNNING GEAR VARIABLE HEIGHT

10.1.0 ENGINE ASSEMBLY

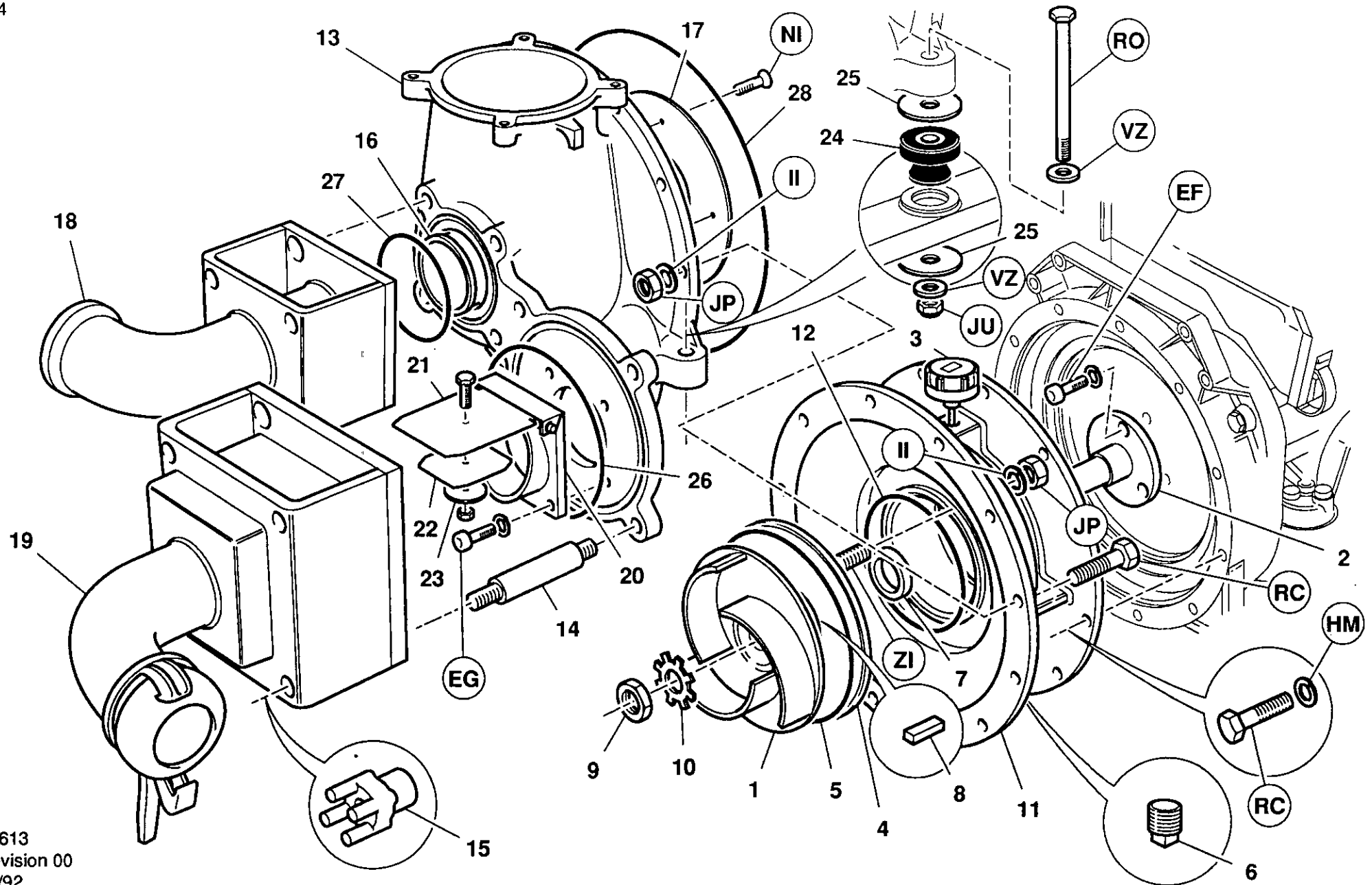
V-4



T1606
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07/92

10.2.0 PUMP ASSEMBLY

V-4



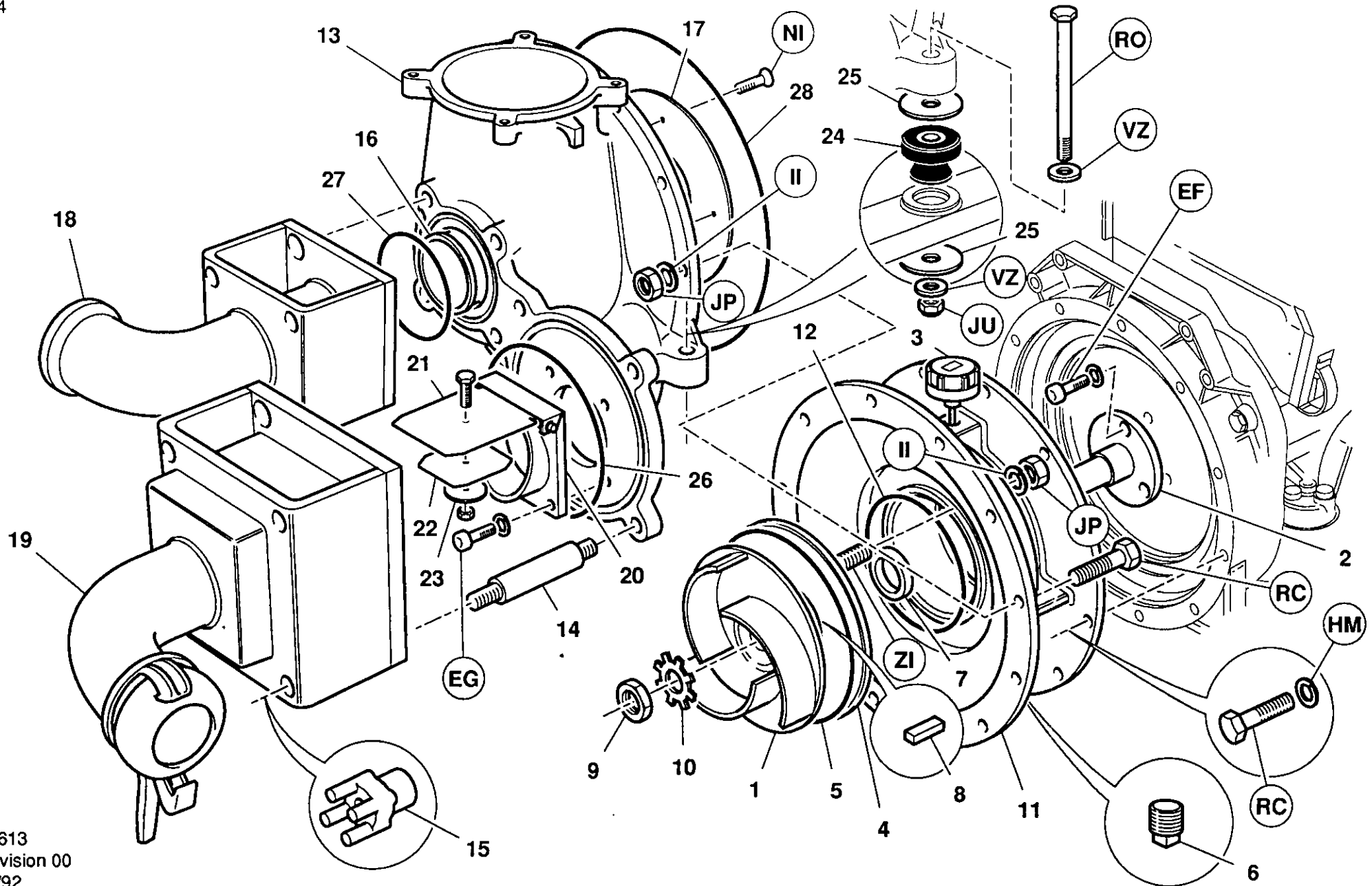
	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1	92864933	1	Impeller			
	2	92864941	1	Shaft			
	3	92863851	1	Gauge, oil level			
	4	92864925	1	Plate			
	5	92864917	1	'O' Ring	Joint torique	'O' Ring	'O' Ring
	6	95298436	1	Plug	Bouchon	Plug	Stopfen
	7	92865328	1	Seal			
	8	92861863	1	Key	Clef	Spie	Schlüssel
	9	92821651	1	Locknut	Ecrou	Borgmoer	
	10	92861871	1	Lockwasher			
	11	92863836	1	Plate			
	12	92863844	1	'O' Ring	Joint torique	'O' Ring	'O' Ring
	13	92864966	1	Housing	Carter	Zuigerhuis	Gehäusew
	14	92900273	8	Stud	Vis de tour	Borgbout	Boizen
	15	92900281	8	Knob, bar			
	16	92900158	1	Insert			
	17	92900166	1	Plate			
	18	92900208	1	Housing	Carter	Zuigerhuis	Gehäusew
	19	92900216	1	Housing	Carter	Zuigerhuis	Gehäusew
	20-23	92900224	1	Valve	Clapet	Klep	Ventil

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10.2.1 PUMP ASSEMBLY

10.2.2 PUMP ASSEMBLY

V-4

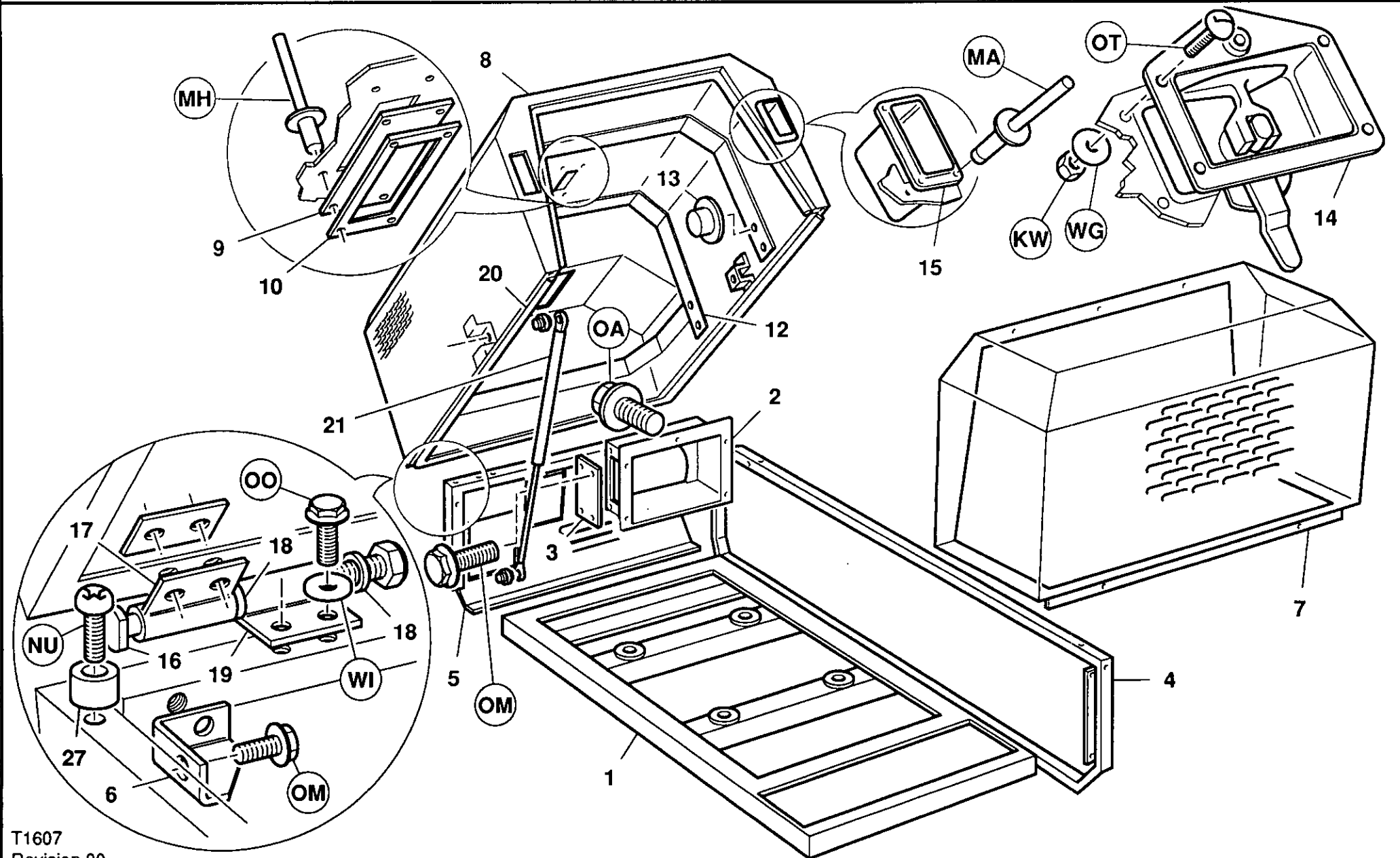


T1613
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10.2.3 PUMP ASSEMBLY

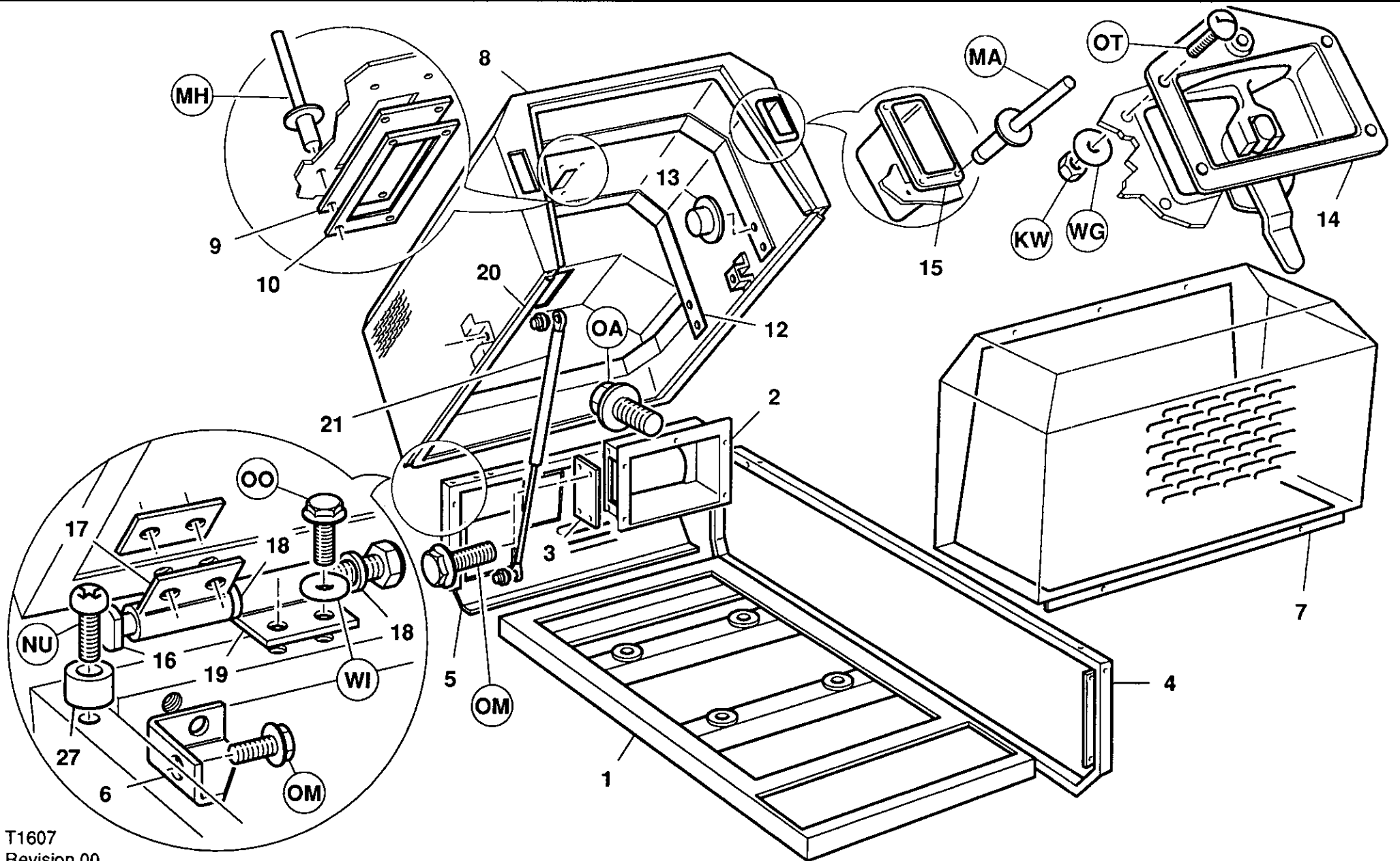
10.3.0 ENCLOSURE



Revision 00
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10.3.1 ENCLOSURE

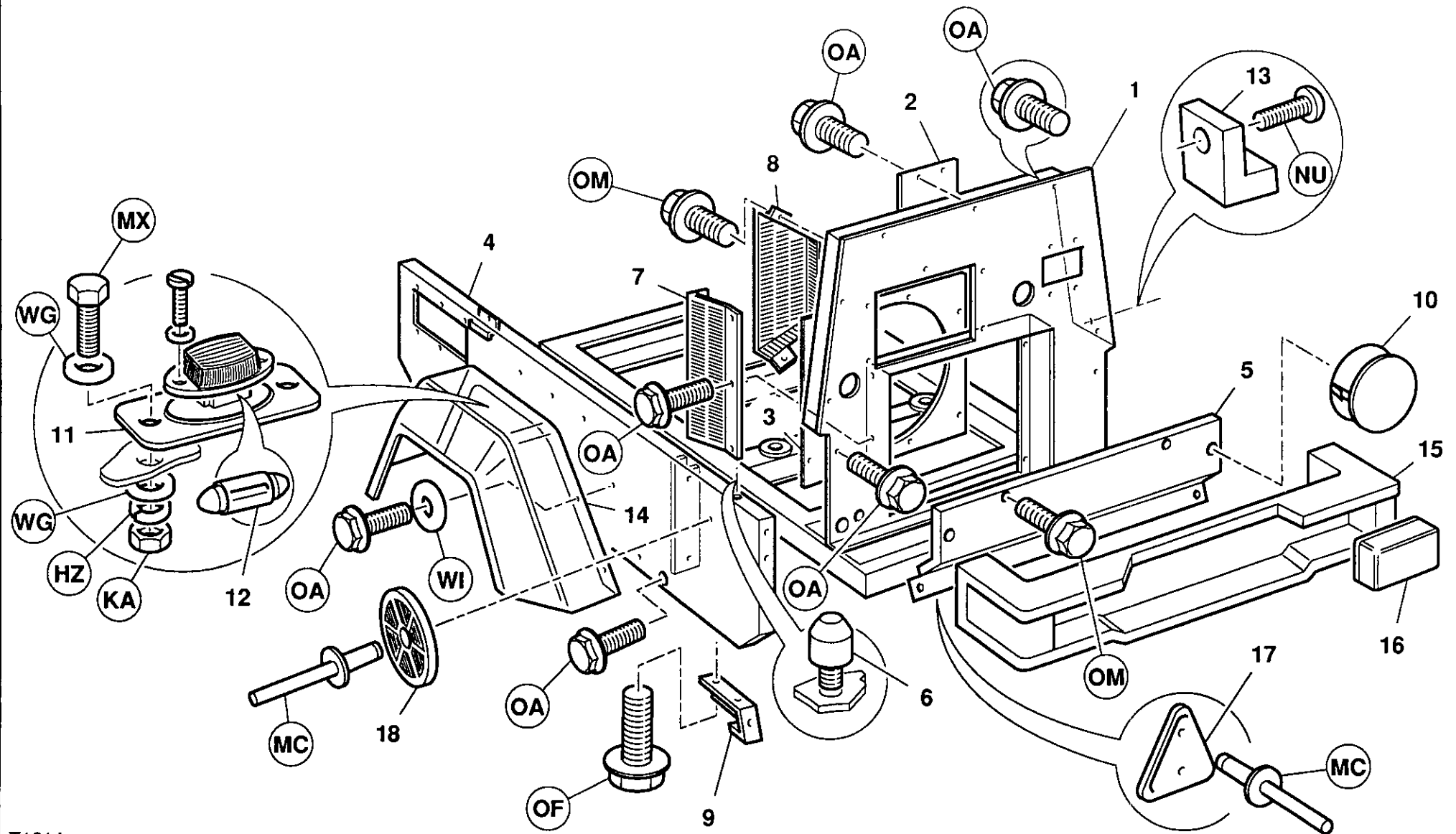
10.3.2 ENCLOSURE



T1607
Revision 00
07/92

10.3.4 ENCLOSURE

V-4



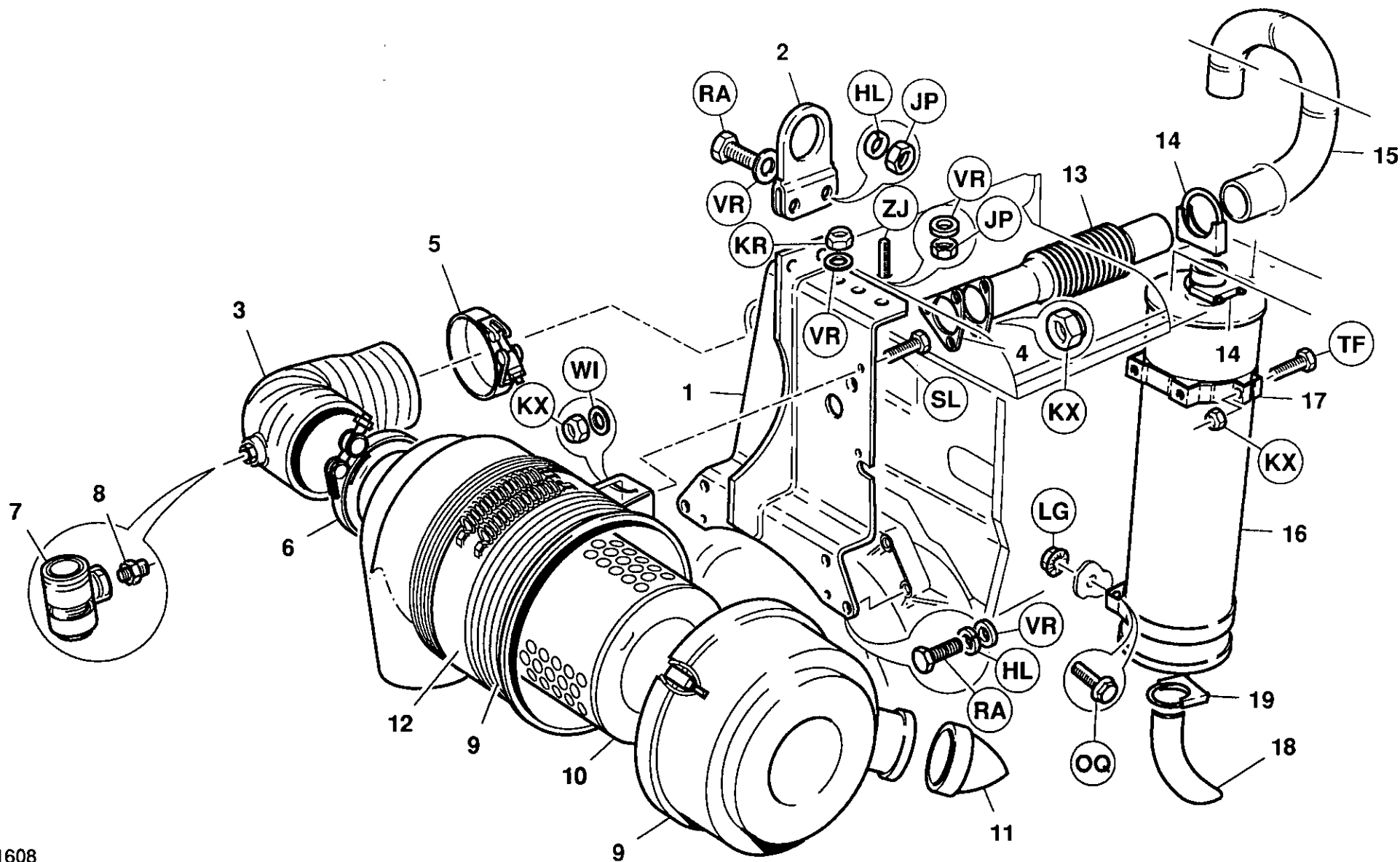
	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1	92789379	1	Support	Support		
	2	92789965	1	Plate, cover	Couvercle	Afsluitplaatje	Abdeckplatte
	3	92923689	1	Plate			
	4	92821008	1	Panel	Panneau	Paneel	Verkleidung
	5	92895135	1	Panel	Panneau	Paneel	Verkleidung
	6	92035187	1	Pin, locating	Pied de centrage	Positioneringspen	Führungsstift
	7	92790351	1	Guard	Protection	Beschermkap	Schutzblech
	8	92919364	1	Guard	Protection	Beschermkap	Schutzblech
	9	92807585	2	Protector			
	10	92783281	20	Plug	Bouchon	Plug	Stopfen
	11	92861178	2	Light, side			
	12	92479757	2	Bulb, light			
	13	92799519	2	Support	Support		
	14	92783588	2	Mudguard			
	15	92894609	1	Bar, bumper			
	16(F)(D)	92783620	2	Light			
	17	92711331	2	Reflector (red)			
	18	92121243	4	Reflector (amber)			
	*19	92085729	2	Reflector (white)			
	*20	92788876	1	Plug	Bouchon	Plug	Stopfen

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10.3.5 ENCLOSURE

10.4.0 AIR INTAKE / EXHAUST SYSTEM

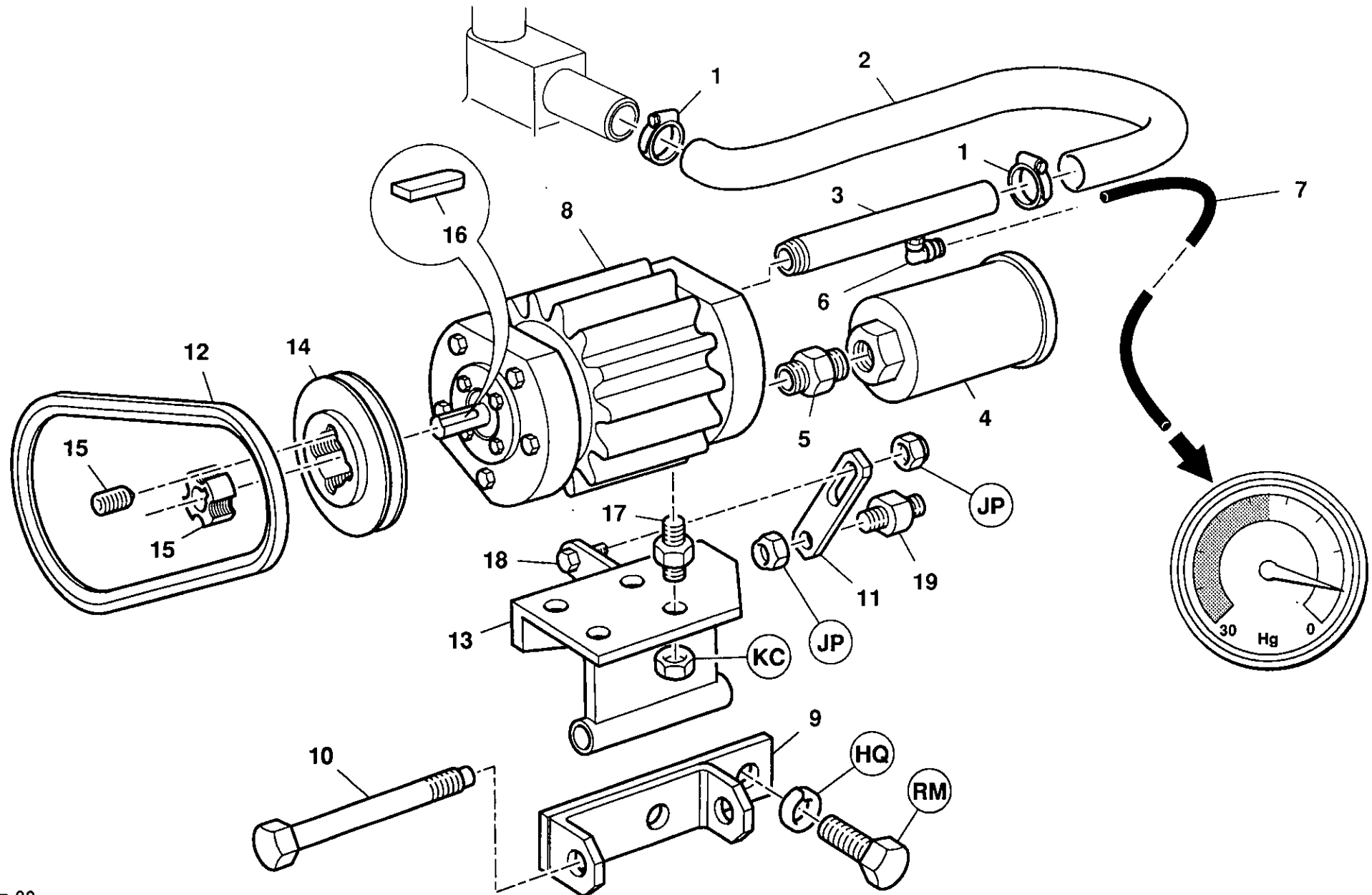
V-4



T1608
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10.5.0 VACUUM SYSTEM

V-4



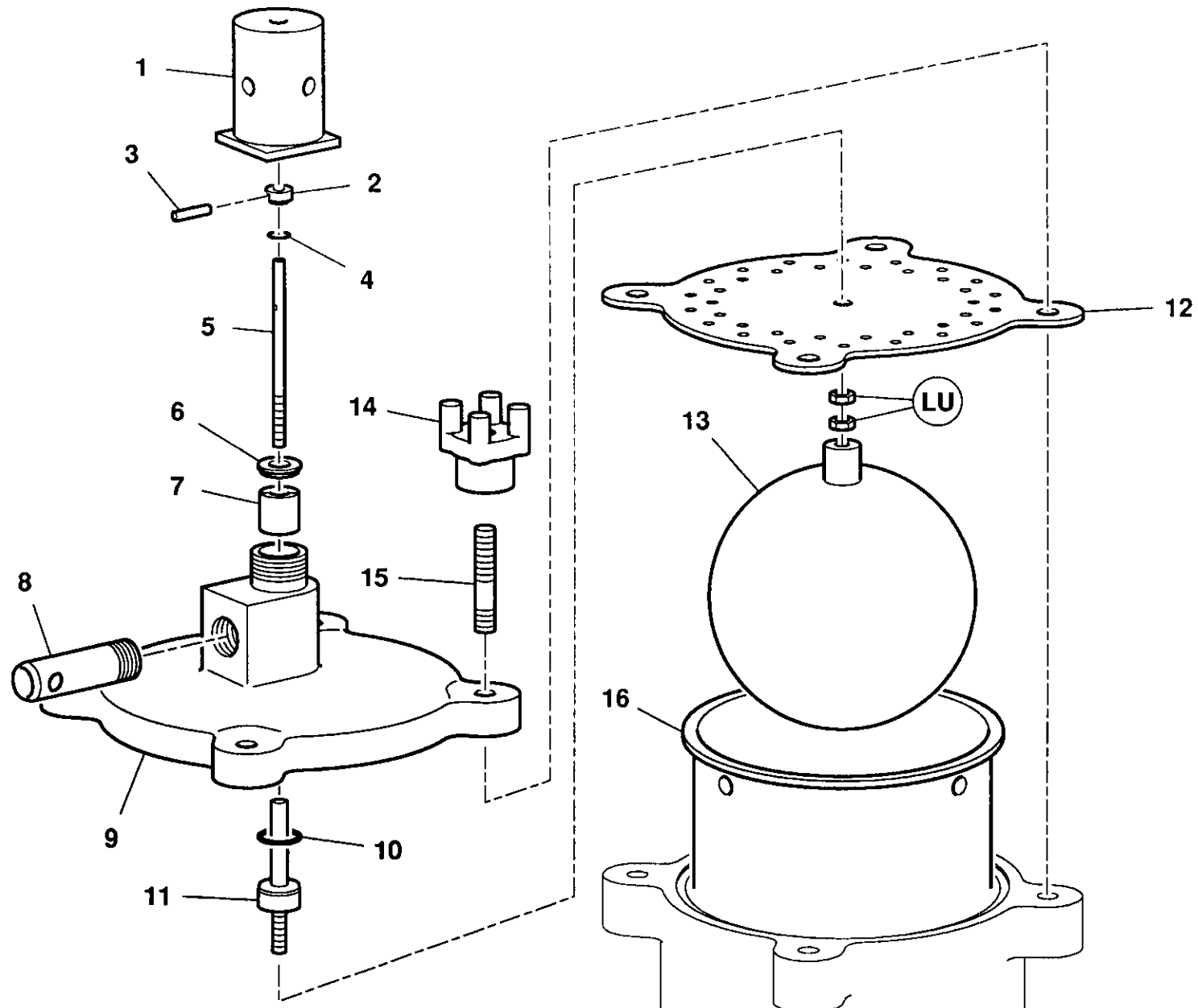
	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1	92803998	2	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	2	92823012	1	Hose	Flexible	Slang	Schlauch
	3	92924521	1	Tube			
	4	92909068	1	Silencer		Demper	
	5	92255934	1	Nipple		Nippel	
	6	92794270	1	Elbow	Coude	Bochtstuk	Krümmer
	7	92490358	0.5m	Tube (Nylon)	Tube	Leiding	Schlauch
	8	92900877	1	Pump			
	9	92893650	1	Bracket	Support	Beugel	Stützblech
	10	92893643	1	Bolt		Bout	
	11	92893601	1	Bracket	Support	Beugel	Stützblech
	12	92893593	1	Belt, drive	Courroie de transmission	Snaar	Antiebsriemen
	13	92900349	1	Bracket	Support	Beugel	Stützblech
	14	92086578	1	Pulley	Poulie	Pulley	Riemscheibe
	15	92902709	1	Bush	Palier	Bus	Hülse
	16	35280551	1	Key	Clef	Spie	Schlüssel
	17	92924539	4	Stud	Vis de tour	Borgbout	Bolzen
	18	92893635	1	Bolt		Bout	
	19	92893635	1	Stud	Vis de tour	Borgbout	Bolzen

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10.5.1 VACUUM PUMP

10.5.2 FLOAT VALVE ASSEMBLY

V-4



T1610
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Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4						
1	92924331	1	Cap			
2	92924315	1	Collar			
3	92924323	1	Pin			
4	92902477	1	'O' Ring	Joint torique	'O'Ring	'O'Ring
5	92924307	1	Rod			
6	92924349	1	Guide			
7	92924356	1	Restrictor			
8	92900034	1	Connector	Connecteur	Koppelstuk	Doppelnippel
9	92900091	1	Cover			
10	92902485	1	'O' Ring	Joint torique	'O'Ring	'O'Ring
11	92900042	1	Rod			
12	92900059	1	Diaphragm			
13	92902634	1	Ball		Kugel	
14	92900109	4	Knob, bar			
15	92924372	4	Stud	Vis de tour	Borgbout	Bolzen
16	92924364	1	Restrictor			

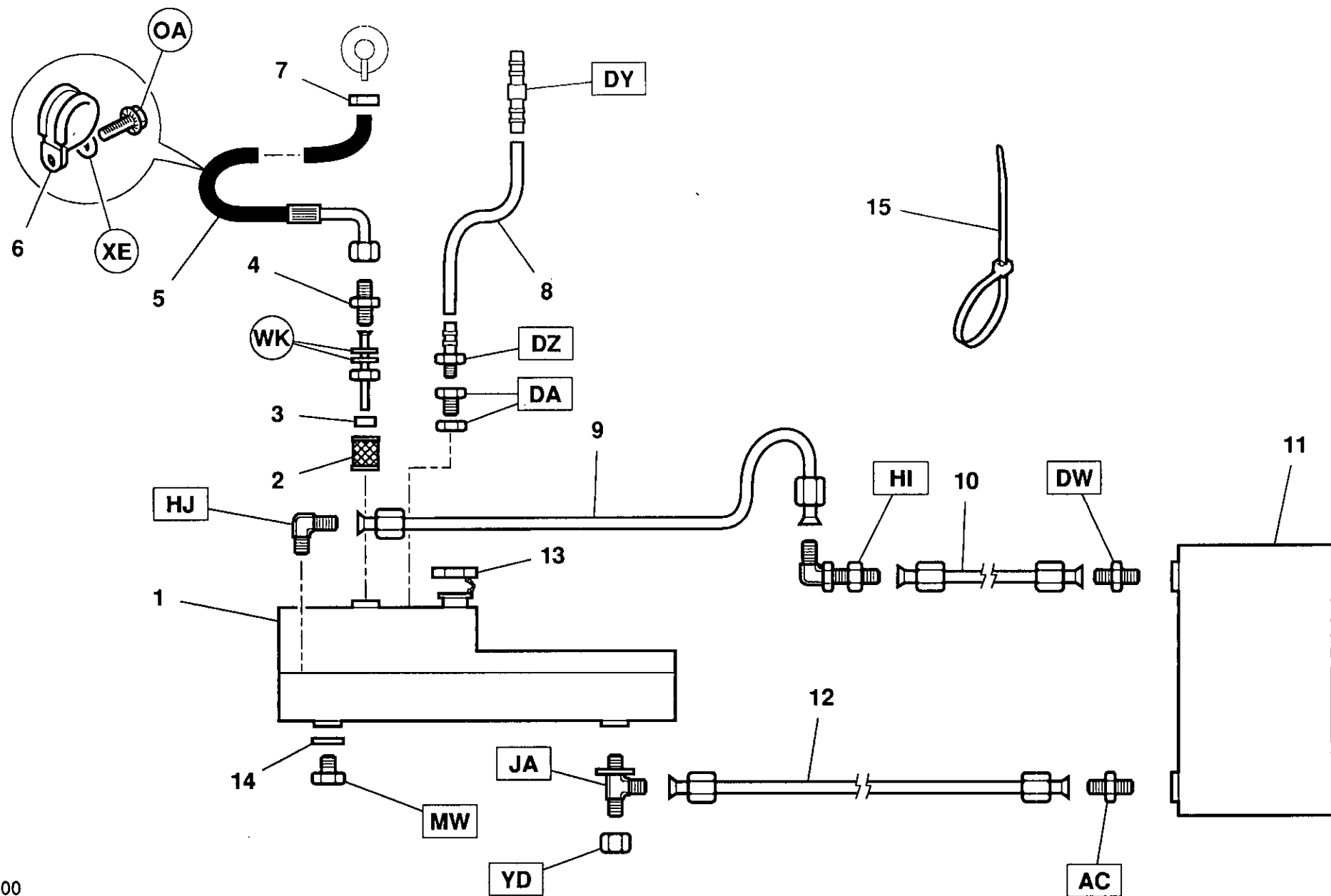
Revision 00
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10.5.3

FLOAT VALVE
ASSEMBLY

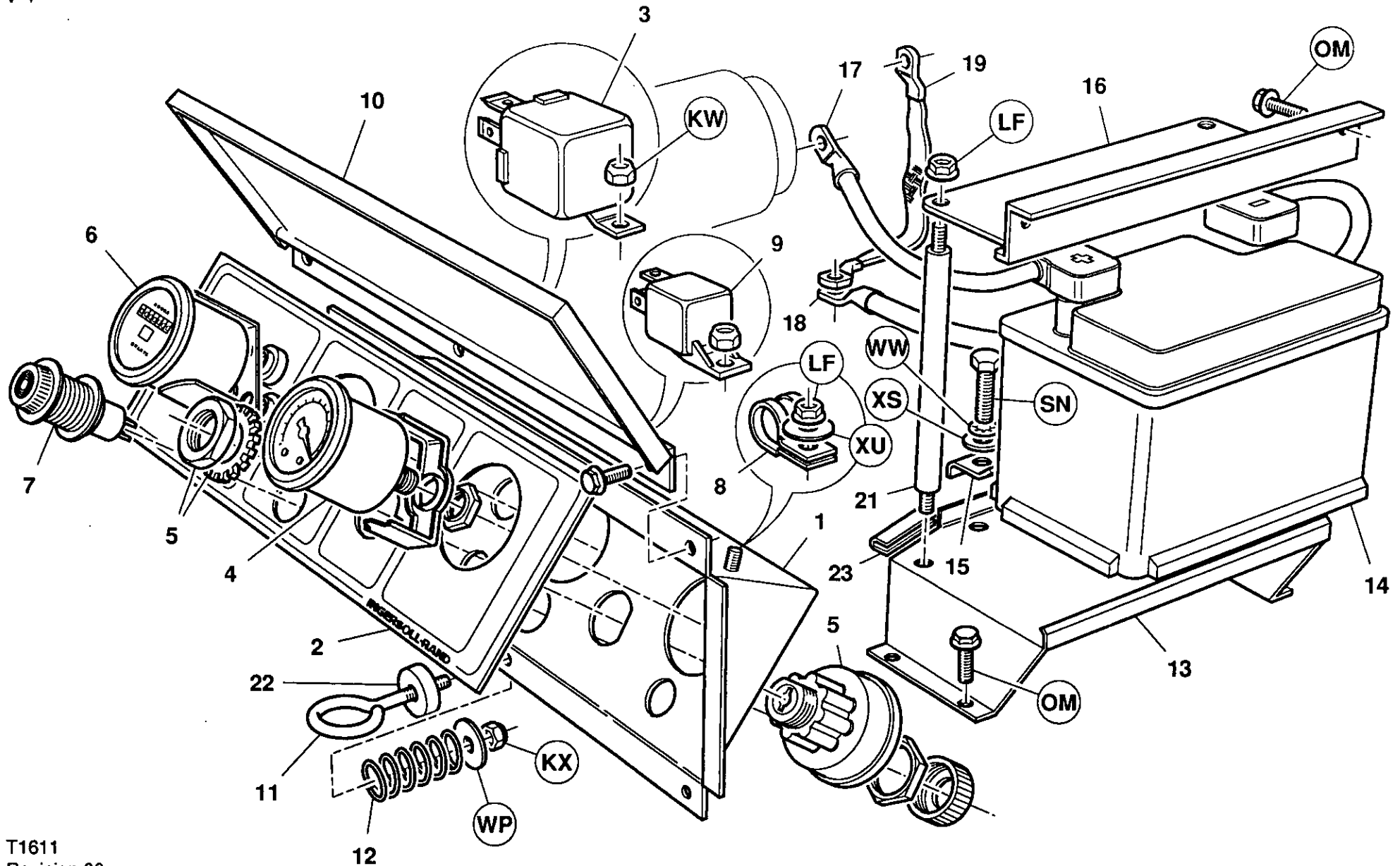
10.6.0 FUEL SYSTEM

V-4



10.7.0 ELECTRICAL SYSTEM

V-4



	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1	92821610	1	Panel, instrument	Panneau instruments	Kontrolepaneel	Armaturenbrett
	2	92822121	1	Decal	Décalque	Tekststicker	Dekor
	3	92826015	1	Relay	Relais	Relais	Relais
	4	92905934	1	Gauge, pressure	Manomètre	Drukmeter	Manometer
	5	92086719	1	Key-switch			
	6	92306901	1	Hourmeter	Compteur horaire	Urenteller	Betriebsstunden-Zähler
	7	92790153	1	Indicator			
	8	92253202	6	Clip, retaining	Clip	Zekeringsbeugel	Befestigungsclip
	9	92076173	1	Relay	Relais	Relais	Relais
	10	92790146	1	Door			
	11	92790476	1	Bolt, eye			
	12	92799840	1	Spring	Ressort	Veer	Feder
	13	92790328	1	Support	Support		
	14	92724947	1	Battery			
	15	92517648	1	Clamp	Collier	Klem	Schelle
	16	92790310	1	Cover			
	17	92790112	1	Cable			
	18	92790120	1	Cable			
	19	92789734	1	Cable, earth	Cable de terre	Aardingskabel	Erdungskabel
	*20	92821685	1	Harness			
	21	92790336	2	Stud	Vis de tour	Borgbout	Bolzen
	22	92799527	1	Spacer			

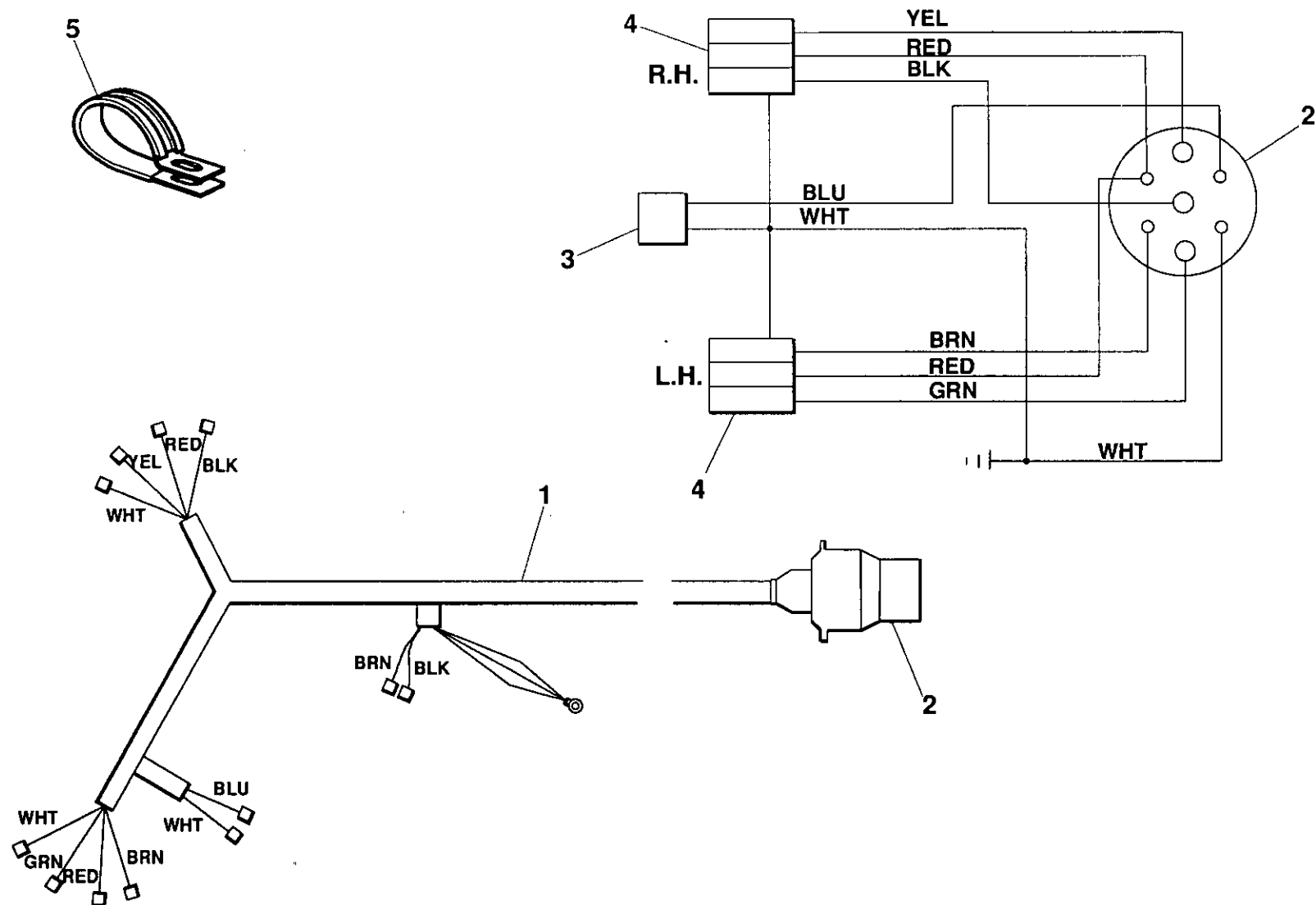
Revision 00
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10.7.1 ELECTRICAL SYSTEM

10.7.2

ELECTRICAL SYSTEM Lighting Harness

V-4

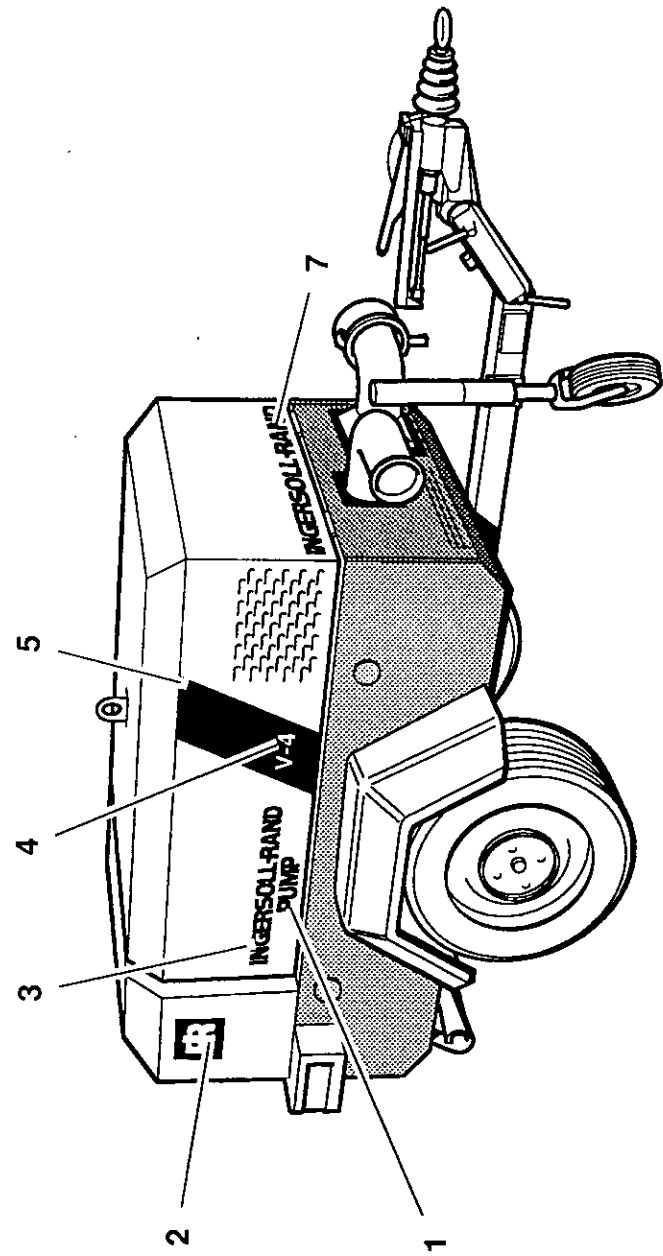


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10.7.3 ELECTRICAL SYSTEM LIGHTING HARNESS

10.8.0 DECALS

V-4



	Item	CPN	Qty	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1-7	92924257	1	KIT - EXTERNAL DECALS			
	1	92920719	2	Decal, 'PUMP'			
	2	92789775	2	Decal, monogram			
	3	92789783	2	Decal, logotype			
	4	92920727	2	Decal, model			
	5	92789809	1	Decal, stripe			
	*6	92789791	1	Decal, stripe			
	7	92512557	2	Decal, logotype			
	*8	-	1	KIT - INTERNAL DECALS			
				(GB) 92950575	(F) 92950583	(NL) 92950591	(D)92950609

10.8.1 DECALS

10.9.0

LITERATURE

LITERATUUR

LITERATUR

Item	CPN	Qty	SERIAL #	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	1	92798446	1	Manual, Operation and Maintenance, with parts catalogue	Manual d'utilisation et d'entretien, avec catalogue de pièces détachées	Bedienings- en onderhoudshandboek, onderdelenkatalogus	Betriebs- und wartungs-handbuch, einschließlich Teile- Liste
	2	(F) (NL) (D)					
	2	(I) (E) (P)	1	Manual, Operation and Maintenance, with parts catalogue	Manual d'utilisation et d'entretien, avec catalogue de pièces détachées	Bedienings- en onderhoudshandboek, onderdelenkatalogus	Betriebs- und wartungs-handbuch, einschließlich Teile- Liste
	3	(DK) (S) (N)	1	Manual, Operation and Maintenance, with parts catalogue	Manual d'utilisation et d'entretien, avec catalogue de pièces détachées	Bedienings- en onderhoudshandboek, onderdelenkatalogus	Betriebs- und wartungs-handbuch, einschließlich Teile- Liste
	4	92798909	1	Manual, Engine manufacturers			



USE ONLY GENUINE INGERSOLL-RAND PARTS

N'UTILISER QUE LES VERITABLES PIECES DETACHEES INGERSOLL-RAND

GEBRUIK ALLEEN ORIGINELE ONDERDELEN VAN INGERSOLL-RAND

NUR ORIGINAL-INGERSOLL-RAND-ERSATZTEILE VERWENDEN

11.0**RECOMMENDED
PARTS****PIÈCES
RECOMMANDES****AANBEVOLEN
ONDERDELEN****EMPFOHLENE
ERSATZTEILE**

CPN

Qty

DESCRIPTION

DESCRIPTION

BESCHRIJVING

BESCHREIBUNG

V-4

92945500

1

KIT – SERVICE

92120013

1

Cap, fuel filler

92863851

1

Breather/gauge, oil level

92900281

2

Knob, bar 16mm

92900232

1

Seal, check valve

92909472

1

Washer, retaining

Rondelle

Vering

Unterlegscheibe

92900059

1

Diaphragm

92900109

2

Knob, bar 10mm

92950096

1

Belt, drive (Pump)

Courroie de transmission

Snaar

Antiebsriemen

92793025

1

Element, air filter

92793033

1

Valve

Clapet

Klep

Ventil

92268051

1

Indicator, air restriction

92306901

1

Hourmeter

Compteur horaire

Urenteller

Betriebsstunden-Zähler

92905934

1

Gauge, pressure

Manomètre

Drukmeter

Manometer

92086719

1

Key-switch

92790153

1

Indicator

92076173

1

Relay, changeover

92826015

1

Relay, start inhibit

92793785

1

Belt, drive (Engine)

Courroie de transmission

Snaar

Antiebsriemen

92793223

1

Element, oil filter

92100981

1

Element, fuel filter

92793777

1

Switch, oil pressure

Pressostat

Drukschakelaar

Druckschalter

92945492

1

KIT – Gasket/o' ring

	CPN	Qty.	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	92945492	1	KIT – GASKET/'O' RING			
	92794221	1	Gasket, exhaust	Joint	Pakking	Dichtung
	92863828	1	Lipseal			
	92863844	1	'O' Ring, seal plate inner	Joint torique	'O'Ring	'O'Ring
	92864917	1	'O' Ring, seal plate outer	Joint torique	'O'Ring	'O'Ring
	92865336	1	'O' Ring, supply casing	Joint torique	'O'Ring	'O'Ring
	92902485	1	'O' Ring, water seal	Joint torique	'O'Ring	'O'Ring
	92902477	1	'O' Ring, air seal	Joint torique	'O'Ring	'O'Ring
	92901941	1	'O' Ring, check valve flap	Joint torique	'O'Ring	'O'Ring
	92901958	1	'O' Ring, discharge conn.	Joint torique	'O'Ring	'O'Ring
	92901966	1	'O' Ring, suction conn.	Joint torique	'O'Ring	'O'Ring
	CPN	Qty.	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
	92945484	1	KIT – FILTER SERVICE			
	92793223	1	Element, oil filter			
	92100981	1	Element, fuel filter			
	92793025	1	Element, air filter			
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11.1	RECOMMENDED PARTS	PIÈCES RECOMMANDES	AANBEVOLEN ONDERDELEN	EMPFOHLENE ERSATZTEILE		

12.0

FASTENER INDEX

**CODE
VISSERIE**

BEVESTIGINGS- MATERIALEN

BEFESTIGUNGS- ELEMENTE

CODE	CPN	PAGE	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
CO	92398601	10.1.0	Bolt M12 X 110		Bout M12 X 110	
EF	92398189	10.2.0	Screw, caphead M12 X 30			
EG	35285584	10.2.0	Screw, caphead M12 X 25			
FM	92421445	10.2.0	Screw, caphead M8 X 40			
HL	92304674	10.4.0	Lockwasher M10			
HM	92329275	10.2.0	Lockwasher M10			
HQ	92304690	10.5.0	Lockwasher M14			
HZ	92304641	10.3.4	Lockwasher M5			
II	92304674	10.2.0	Lockwasher M10			
IC	92265891	10.1.0	Nut 1/4 UNF	Ecrou 1/4 UNF	Moer 1/4 UNF	Mutter 1/4 UNF
JP	92304526	10.2.0 10.4.0 10.5.0	Nut M10	Ecrou M10	Moer M10	Mutter M10
JU	90103839	10.2.0	Nut M16	Ecrou M16	Moer M16	Mutter M16
KA	92304492	10.3.4	Nut M5	Ecrou M5	Moer M5	Mutter M5
KC	92100568	10.5.0	Nut M8	Ecrou M8	Moer M8	Mutter M8
KR	92304567	10.4.0	Locknut M10	Ecrou M10	Borgmoer M10	
KS	92304575	10.1.0	Locknut M12	Ecrou M12	Borgmoer M12	
KW	92304542	10.3.0 10.7.0	Locknut M6	Ecrou M6	Borgmoer M6	
KX	92304559	10.4.0 10.7.0	Locknut M8	Ecrou M8	Borgmoer M8	
LF	92398106	10.7.0	Nut M6 <i>Whiztite</i>	Ecrou M6 <i>Whiztite</i>	Moer M6 <i>Whiztite</i>	Mutter M6 <i>Whiztite</i>
LG	92398114	10.4.0	Nut M8 <i>Whiztite</i>	Ecrou M8 <i>Whiztite</i>	Moer M8 <i>Whiztite</i>	Mutter M8 <i>Whiztite</i>
LU	92902626	10.5.2	Nut 5/16 BSW	Ecrou 5/16 BSW	Moer 5/16 BSW	Mutter 5/16 BSW
MA	92271923	10.3.0	Rivet 3/16 X 5/8	Rivet 3/16 X 5/8	Klinknagel 3/16 X 5/8	Niet 3/16 X 5/8
MC	92271915	10.3.4	Rivet 3/16 X 1/2	Rivet 3/16 X 1/2	Klinknagel 3/16 X 1/2	Niet 3/16 X 1/2
MH	92488188	13.0	Rivet 3/16 X 3/4	Rivet 3/16 X 3/4	Klinknagel 3/16 X 3/4	Niet 3/16 X 3/4

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	CODE	CPN	PAGE	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
V-4	MX	92340058	10.3.4	Setscrew	Vis	Intelschroef	Sartschrause
	NI	35307818	10.2.0	Setscrew	Vis	Intelschroef	Sartschrause
	NU	92441450	10.3.0 10.3.4	Setscrew	Vis	Intelschroef	Sartschrause
	OA	92368687	10.3.0 10.3.4 10.6.0	Setscrew	Vis	Intelschroef	Sartschrause
	OF	92472638	10.3.4	Setscrew	Vis	Intelschroef	Sartschrause
	OM	92184811	10.3.0 10.3.4 10.7.0	Setscrew	Vis	Intelschroef	Sartschrause
	OO	92398122	10.3.0	Setscrew	Vis	Intelschroef	Sartschrause
	OT	92722990	10.3.0	Setscrew	Vis	Intelschroef	Sartschrause
	RA	92280981	10.4.0	Setscrew	Vis	Intelschroef	Sartschrause
	RC	92304427	10.2.0	Setscrew	Vis	Intelschroef	Sartschrause
	RM	92472927	10.1.0 10.5.0	Setscrew	Vis	Intelschroef	Sartschrause
	RO	92040823	10.2.0	Setscrew	Vis	Intelschroef	Sartschrause
	SL	92304336	10.4.0	Setscrew	Vis	Intelschroef	Sartschrause
	SN	90141078	10.7.0	Setscrew	Vis	Intelschroef	Sartschrause
	TF	92419282	10.4.0	Setscrew	Vis	Intelschroef	Sartschrause
	VR	92329283	10.4.0	Washer M10	Rondeller M10	Ring mor M10	Unterlegscheiber M10
	VX	92304633	10.1.0	Washer M14	Rondelle M14	Ring mo M14	Unterlegscheibe M14
	VZ	92359363	10.2.0	Washer M16	Rondelle M16	Ring mo M16	Unterlegscheibe M16
	WG	92341981	10.3.0 10.4.0	Washer M6	Rondelle M6	Ring mo M6	Unterlegscheibe M6
	WI	92304609	10.3.0 10.4.0	Washer M8	Rondelle M8	Ring mo M8	Unterlegscheibe M8
	WP	92042241	10.7.0	Washer M6 <i>Nylon</i>	Rondelle M6 <i>Nylon</i>	Ring mo M6 <i>Nylon</i>	Unterlegscheibe M6 <i>Nylon</i>
	WW	92061456	10.7.0	Washer M8	Rondelle M8	Ring mo M8	Unterlegscheibe M8
	XE	95094298	10.6.0	Washer 1/4	Rondelle 1/4	Ring mo 1/4	Unterlegscheibe 1/4
	XS	92687664	10.7.0	Washer M8	Rondelle M8	Ring mo M8	Unterlegscheibe M8
Revision 00 07/92							
12.1	FASTENER INDEX			CODE VISserie	BEVESTIGINGS- MATERIALEN	BEFESTIGUNGS- ELEMENTE	

13.0

TUBE FITTINGS INDEX

CODE RACCORDS

CODE	CPN	PAGE	DESCRIPTION	DESCRIPTION	BESCHRIJVING	BESCHREIBUNG
AC	92123215	10.6.0	Adaptor	Adapteur	Adapter	Anschlußnippel
DA	92354638	10.6.0	Connector	Connecteur	Koppelstuk	Doppelnippel
DW	92851211	10.6.0	Connector	Connecteur	Koppelstuk	Doppelnippel
DY	92792969	10.6.0	Connector	Connecteur	Koppelstuk	Doppelnippel
DZ	92792993	10.6.0	Connector	Connecteur	Koppelstuk	Doppelnippel
HI	92908458	10.6.0	Elbow	Coude	Bochtstuk	Krümmen
HJ	92029586	10.6.0	Elbow	Coude	Bochtstuk	Krümmen
JA	92877844	10.6.0	Tee	Te	T-stuk	T-Stück
MW	92871367	10.6.0	'O' Ring	Joint torique	'O' Ring	'O' Ring
YD	92905892	10.6.0	Cap			



USE ONLY GENUINE INGERSOLL-RAND PARTS

N'UTILISER QUE LES VERITABLES PIECES DETACHEES INGERSOLL-RAND

GEBRUIK ALLEEN ORIGINELE ONDERDELEN VAN INGERSOLL-RAND

NUR ORIGINAL-INGERSOLL-RAND-ERSATZTEILE VERWENDEN

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