BAU BILDUNG SACHSEN	Bezeichnung: **Hinweise zur Nutzung von Arbeitsmitteln**	Nr.: A – DD01 Ausgabe: 08-2023 Seite: 01
Bereich: AB, WB, BO	Arbeitsmittel:	Kompressor
Freigabe (Unterschrift):	Tätigkeit:	Betreiben v. Masch.

Schritt 1	**Für die Benutzung dieses Arbeitsmittels sind Voraussetzungen zu erfüllen:**
Bedienberechtigung:	Jugendliche, Auszubildende nur unter Aufsicht Ausbilder
Arbeitsauftrag:	
Unterweisung: --> 2x pro Jahr	aktuell und speziell
Ist eine der Voraussetzungen nicht erfüllt, dürfen Sie das **Arbeitsmittel nicht nutzen!**	

Schritt 2	Die Dokumentenzusammenstellung enthält wichtige Informationen zum sicheren und effektiven Betreiben des Arbeitsmittels, welches Sie nutzen wollen - Beachten Sie die nachfolgenden Punkte!	
Informieren und Überprüfen	Lesen Sie die **Betriebsanweisung** durch. Beachten Sie die speziellen Hinweise.	Siehe unten
	Bei Gefahrstoffen: Informieren Sie sich über Gefahren! Lesen Sie das **Sicherheitsdatenblatt**	→ Sicherheits-datenblatt
	Überprüfen Sie, ob das Arbeitsmittel aktuell überprüft und somit für Sie sicher ist → **Prüfprotokolle**.	→ Protokoll ELT → Protokoll Mech
	Nutzen Sie die kompakte Zusammenfassung der **Sicherheitsinformationen der BG**.	Siehe unten
	Machen Sie sich mit der **Betriebsanleitung des** Herstellers vertraut.	Siehe unten
	Ausbilder: BBSN - **Unterweisungshilfen**.	→ Unterweisung
	Ausbilder: **Checkliste** zur Gefährdungsbeurteilung	

Schritt 3	Mit der Nutzung des Arbeitsmittels bestätigt der Nutzer, alle o.g. Unterlagen gelesen und verstanden zu haben, sowie zu berücksichtigen.		
Mängel?	Stellen Sie bei der Überprüfung Mängel fest, …	…nehmen Sie das Arbeits-mittel **nicht in Betrieb!**	Meldung an den Vorgesetzten (Ausbilder, Bereichsleitung) Tel.: 0351 – 20272 51
	Sollten Sie nicht unterwiesen sein, …		
	Stellen Sie beim Betreiben einen Mangel fest, …	…setzen Sie das Arbeits-mittel **außer Betrieb!**	

BAU BILDUNG SACHSEN	Bezeichnung: **Betriebsanweisung**	Nr.: A – DD01 Ausgabe: 04-2024 Seite: 01
Bereich: AB, WB		Arbeitsmittel: **Kompressoren für Druckluft**
Freigabe (Unterschrift):		Tätigkeit: Stemm-, Spitz-, Druckluftarbeiten

1. Anwendungsbereich

Betreiben und Instandhalten von Kompressoren für Druckluft

2. Gefahren für Mensch und Umwelt

- Gefahr durch unbeabsichtigtes Lösen von Schlauchverbindungen unter Druckluft.
- Brandgefahr bei Verpuffung durch Stichflammen.
- Verbrennungsgefahr durch austretende Betriebsstoffe.
- Erstickungsgefahr bei der Entnahme von Atemluft (unbemerkter Verdichterbrand, CO-Vergiftung).
- Gefahr durch Lärm, wenn Gerätehauben während des Betriebes nicht ordnungsgemäß geschlossen sind.

3. Schutzmassnahmen und Verhaltensregeln

- Betriebsanleitung des Herstellers beachten.
- Betrieb nicht ohne erforderliche Abdeckungen an Ventilatoren/Keilriemen.
- Brandgefahren mindern durch folgende Maßnahmen:
  - Ölstand regelmäßig vor Arbeitsbeginn kontrollieren.
  - Verdichteröl regelmäßig wechseln.
  - Vakuumanzeige an Luftansaugfilter kontrollieren.
  - Verdichter niemals ohne Luftfilter betreiben, da durch Staubansaugung Überhitzungsgefahr besteht.
  - Gelöste Kabelverbindungen vermeiden.
  - Ölgetränkte oder abgelöste Dämmmatten der Schallschutzisolierung ersetzen.
  - Staubablagerung und Vergießen von Betriebsstoffen vermeiden.
  - Kompressor regelmäßig reinigen.
  - Auf ungehinderte Kühlluftansaugung achten, keine heiße Luft ansaugen.
  - Ansaugung von Lösemitteldämpfen, Stäuben vermeiden.
- Bei der Aufstellung auf Standsicherheit achten. Schläuche und Schlauchverbindungen kontrollieren.
- Verdichter aufgrund der Lärmemission nicht mit geöffneten Hauben betreiben.
- Regelung regelmäßig kontrollieren: während Volllast Luftaustrittventile schließen, Maschine muss in Leerlaufbetrieb gehen.
- Bei Inbetriebnahme das Aufpumpen gegen geschlossenen Schieber vermeiden.

4. Verhalten bei Störungen

- Abschalten der Maschine und NOT-AUS -Taster betätigen.
- Stromunterbrechung durch Ausschalten des Hauptschalters.
- Baustellen sind während der Arbeiten abzusichern. Vorgesetzte informieren.

5. Erste Hilfe

- Bei Unfällen ist Erste Hilfe zu leisten (Blutungen stillen, verletzte Gliedmaßen ruhigstellen, Schockbekämpfung).
- Notruf 112 absetzen
- Ruhe bewahren und auf Rückfragen antworten.
- Unfall dokumentieren.

6. Instandhaltung

- Instandhaltungsarbeiten von sachkundigen, beauftragten Personen durchführen lassen
- Reparaturen nur von Sachkundigen durchführen lassen.
- Abmontierte Schutzeinrichtungen sind nach Instandsetzungsarbeiten vor Inbetriebnahme der Verdichter wieder fest anzubringen.

BAU BILDUNG SACHSEN	Bezeichnung: **Prüfbescheinigung für die wiederkehrende Prüfung** nach BetrSichV Prüfung von Arbeitsmitteln und überwachungsbedürftigen Anlagen	Nr.: A – DD01 - P Ausgabe: 08-2023 Seite: 01
Bereich: AB, WB, BO		Arbeitsmittel: **Flurförderzeug Propangasstapler**
Freigabe (Unterschrift):		Tätigkeit: Transport- und Verladearbeiten

Auftraggeber:	BBSN ÜAZ DD	Prüfende Stelle:	Befähigte Person
			Ewert, Frank
Bezeichnung:	DFG/TFG 16 - 50 A/B/C-K	Inventarnummer:	*xxxx000*
Hersteller:	Jungheinrich	Herstellungsjahr:	
Seriennummer:		Erstprüfung:	
Prüfdatum:		Nächste Prüfung:	

Sichtprüfung			Funktionsprüfung		
Bauteil	OK	Mangel	Funktion	OK	Mangel

Teil-Prüfung bestanden	Ja	Nein	Fkt.-Prüfung bestanden	Ja	Nein

Elektrische Leitfähigkeit		Werte aus aktuellem DGUV 3-Prüfprotokoll übernommen!	Wert gem. Protokoll in Ordnung?	
Prüfwiderstand (in Ω Ohm):			Ja	Nein
Grenzwert: (in Ω Ohm):				

Prüfergebnis	Ja	Nein	Erklärung
Prüfung bestanden			Prüfung wurde durchgeführt durch zur Prüfung befähigte Person nach Betriebssicherheitsverordnung.

Prüfdatum		Prüfer	…….

Nachprüfung nach erfolgter Mängelbeseitigung			
Teil	ok	Datum	Unterschrift

Arbeitsblatt: Gefährdungen und Schutzziele

Betriebsstätte:		**Verantwortliche Person:**	
Betriebsbereich:		**Stand:**	13.12.2023
Arbeitsplatz:	Kompressor/Druckbehälter	**Blatt-Nr.**	

Ermittelte Gefährdungen *(Beschreibung)*	**Risiko** [2] ☺😐☹	**Schutzmaßnahme**	**Handlungsbedarf**		**Wirksamkeit**	
			Wer	Bis wann	Wirksam ab	Wer
Lärm	☺😐☹	☐ Kompressor in einem separaten Raum aufstellen und/oder kapseln ☐				
Unkontrolliert bewegte Teile	☺😐☹	☐ Erstmalige Prüfung durch zugelassene Überwachungsstelle (Inhalt*Maximaldruck p*V≥200) ☐ Kompressor, Druckbehälter und Zuführleitungen regelmäßig prüfen ☐ Wiederkehrende Prüfung durch zugelassene Überwachungsstelle (Inhalt*Maximaldruck p*V≥1000) durchführen ☐				
.....	☺😐☹	☐				

Mitgeltende Unterlagen: ☐ Betriebsanweisung ☐ Bedienungsanleitung Wo befinden sich diese: .....

[2] *Beurteilen Sie das Risiko mit den Schutzmaßnahmen, die zum Zeitpunkt der Beurteilung wirksam sind. Einstufung gem. Gefährdungsmatrix in „klein“ „Symbol Smiley grün“ (Stufe 1), „mittel“ „Symbol Smiley gelb“ (Stufe 2) und „groß“ „Symbol Smiley rot“ (Stufe 3/ Stufe 4) 13.12.2023*

Instruction Manual
for Portable Compressors

XA(S)90 DdG

400/230V - 50 Hz

PAGE

Registration code
Collection: APCX1
Tab: 38

Printed matter N°
2950 0590 00 EN

1998 - 04

Atlas Copco

ATLAS COPCO – PORTABLE AIR DIVISION
B-2630 AARTSELAAR BELGIUM

Congratulations on the purchase of your XA(S)90 DdG compressor. It is a solid, safe and reliable machine, built according to the latest technology. Follow the instructions in this booklet and we guarantee you years of troublefree operation. Please read the following instructions carefully before starting to use your machine.

Always keep the manual available near the machine.

In all correspondence always mention the compressor type and serial number, shown on the data plate.

The company reserves the right to make changes without prior notice.

CONTENTS **PAGE**

CONTENTS PAGE

CONTENTS PAGE

SAFETY PRECAUTIONS FOR PORTABLE COMPRESSORS WITH GENERATOR

To be read attentively and acted accordingly before towing, lifting, operating, performing maintenance or repairing the compressor

Introduction

The policy of Atlas Copco is to provide the users of their equipment with safe, reliable and efficient products. Factors taken into account are among others:

– the intended and predictable future use of the products, and the environments in which they are expected to operate,

– applicable rules, codes and regulations,

– the expected useful product life, assuming proper service and maintenance.

Before handling any product, take time to read the relevant instruction book. Besides giving detailed operating instructions, it also gives specific information about safety, preventive maintenance, etc.

These precautions are general and some statements will therefore not always apply to a particular unit.

When handling, operating, overhauling and/or performing maintenance or repair on Atlas Copco equipment, the mechanics are expected to use safe engineering practices and to observe all relevant local safety requirements and ordinances. The following list is a reminder of special safety directives and precautions mainly applicable to Atlas Copco equipment.

This brochure applies to machinery processing or consuming air or inert gas. Processing of any other gas requires additional safety precautions typical to the application and are not included herein.

All responsibility for any damage or injury resulting from neglecting these precautions or by non-observance of ordinary caution and due care required in handling, operating, maintenance or repair, also if not expressly mentioned in this brochure or the instruction book(s), is disclaimed by Atlas Copco.

If any statement does not comply with local legislation, the stricter of the two shall be applied. Statements in this brochure should not be interpreted as suggestions, recommendations or inducements that it should be used in violation of any applicable laws or regulations.

General safety precautions

1 The owner is responsible for maintaining the unit in a safe operating condition. Unit parts and accessories must be replaced if missing or unsuitable for safe operation.

2 Use only lubricating oils and greases recommended or approved by Atlas Copco or the machine manufacturer. Ascertain that the selected lubricants comply with all applicable safety regulations, especially with regard to explosion or fire risk and the possibility of decomposition or generation of hazardous gases.

3 The supervisor, or the responsible person, shall at all times make sure that all instructions regarding machinery and equipment operation and maintenance are strictly followed and that the machines with all accessories and safety devices, including the entire compression or vacuum system with pipes, valves, connectors, hoses, etc., as well as the consuming devices, are in good repair, free of abnormal wear or abuse, and are not tampered with.

4 Maintenance, overhaul and repair work shall only be carried out by adequately trained personnel; if required, under supervision of someone qualified for the job.

5 Whenever there is an indication or any suspicion that an internal part of a machine is overheated, the machine shall be stopped but no inspection covers shall be opened before sufficient cooling time has elapsed; this to avoid the risk of spontaneous ignition of the oil vapour when air is admitted.

6 Maintenance work, other than routine attention, shall only be undertaken when the machine is standing still.

7 Before dismantling any pressurized component, the compressor or the equipment shall be effectively isolated from all sources of pressure and be completely vented to atmosphere. In addition, a warning sign bearing a legend such as „work in progress; do not open“ shall be attached to each of the isolating valves.

8 Before a machine is being repaired, steps shall be taken to prevent inadvertent starting. In addition, a warning sign bearing a legend such as „work in progress; do not start“ shall be attached to the starting equipment. On engine-driven units the battery shall be disconnected and removed or the terminals covered by insulating caps. On electrically driven units the main switch shall be locked in open position and the fuses shall be taken out. A warning sign bearing a legend such as „work in progress; do not supply voltage“ shall be attached to the fuse box or main switch.

9 Normal ratings (pressures, temperatures, speeds, etc.) shall be durably marked.

10 Never operate a machine or equipment beyond its rated limits (pressure, temperature, speed, etc.).

11 Maintenance and repair work should be recorded in an operator's logbook for all machinery. Frequency and nature of repairs can reveal unsafe conditions.

12 The machinery and pneumatic equipment shall be kept clean, i.e. as free as possible from oil, dust or other deposits.

13 To prevent an increase in working temperature, inspect and clean heat transfer surfaces (cooler fins, intercoolers, water jackets, etc.) regularly. For every machine establish a suitable time interval for cleaning operations.

14 All regulating and safety devices shall be maintained with due care to ensure that they function properly. They may not be put out of action.

15 Care shall be taken to avoid damage to safety valves and other pressure-relief devices, especially to avoid plugging by paint, oil coke or dirt accumulation, which could interfere with the functioning of the device.

16 Pressure and temperature gauges shall be checked regularly with regard to their accuracy. They shall be replaced whenever outside acceptable tolerances.

17 Parts shall only be replaced by genuine Atlas Copco replacement parts.

18 Safety devices shall be tested as described in the maintenance schedule of the instruction book(s) to determine that they are in good operating condition.

19 Never use flammable solvents or carbon tetrachloride for cleaning parts. Take safety precautions against toxic vapours when cleaning parts in or with cleaning products.

20 Observe scrupulous cleanliness during maintenance and repair. Keep away dirt by covering the parts and exposed openings with clean cloth, paper or tape.

21 Protect the motor, alternator, air intake filter, electrical and regulating components, etc. to prevent moisture ingress, e.g. when steam-cleaning.

22 When performing any operation involving heat, flames or sparks on a machine, the surrounding components shall first be screened with non-flammable material.

23 Never use a light source with open flame for inspecting the interior of a machine, pressure vessel, etc.

24 On portable units, support the drawbar and axle(s) securely if working underneath the units or when removing a wheel. Do not rely on jacks.

25 Prior to stripping a compressor, engine or other machine or undertaking major overhaul on it, prevent all movable parts with a mass exceeding 15 kg (30 lbs) from rolling over or moving.

26 When repair has been completed, make sure that no tools, loose parts or rags are left in, or on, the machine, the prime mover or the driving gear. The machine shall be barred over at least one revolution for reciprocating machines, several revolutions for rotary ones to ensure that there is no mechanical interference within the machine or driver. Check the direction of rotation of electric motors when starting up the machine initially and after any alteration to the electrical connection(s) or switch gear, to check that the oil pump and the fan function properly.

SAFETY DURING USE AND OPERATION

To lift a unit, all loose or pivoting parts, e.g. doors and drawbar, shall first be securely fastened. Do not attach cables, chains or ropes directly to the lifting eye; apply a crane hook or lifting shackle meeting local safety rules.

Helicopterlifting using the lifting eye is forbidden.

It is strictly forbidden to dwell or stay in the risk zone under a lifted load. Never lift the unit over people or residential areas.

Lifting acceleration and retardation shall be kept within safe limits.

1 Before towing the unit:
   - ascertain that the pressure vessel(s) is (are) depressurized,
   - check the drawbar, the brake system and the towing eye. Also check the coupling of the towing vehicle,
   - check that the pivot wheel or stand leg is safely locked in the raised position,
   - ascertain that the towing eye can swivel freely on the hook,
   - check that the wheels are secure and that the tyres are in good condition and inflated correctly,
   - connect the signalisation cable, check all lights and connect the pneumatic brake couplers,
   - attach the safety break-away cable to the towing vehicle,
   - remove wheel chocks, if applied, and disengage the parking brake.

2 If the unit is to be backed up by the towing vehicle, disengage the overrun brake mechanism.

3 Never exceed the maximum towing speed of the unit.

4 Place the unit on level ground and apply the parking brake before disconnecting the unit from the towing vehicle. Unclip the safety break-away cable. If the unit has no parking brake the support of the towbar partly acts as a brake; it is recommended to immobilize the unit by placing chocks before or behind the wheels.

   When the towbar can be positioned vertically, the locking device must be applied and kept in good order.

5 When the unit has to operate in a fire-hazardous environment, each engine exhaust has to be provided with a spark arrestor to trap incendiary sparks.

6 The exhaust contains carbon monoxide which is a lethal gas. When the unit is used in a confined space, conduct the engine exhaust to the outside atmosphere by a pipe of sufficient diameter (min. 100 mm); do this in such a way that no extra back pressure is created for the engine. If necessary, install an extractor.

7 When operating in a dust-laden atmosphere, place the unit so that dust is not carried towards it by the wind. Operation in clean surroundings considerably extends the intervals for cleaning the air intake filters and the cores of the coolers.

8 Locate the unit away from walls. Take all precautions to ensure that hot air exhausted from the engine and driven machine cooling systems cannot be re-circulated. If such hot air is taken in by the engine or driven machine cooling fan, this may cause overheating of the unit; if taken in for combustion, the engine power will be reduced.

9 No external force may be exerted on the air outlet valves, e.g. by pulling on hoses or by installing auxiliary equipment directly to a valve, e.g. a water separator, a lubricator, etc.

10 Distribution pipework and air hoses must be of correct size and suitable for the working pressure. Never use frayed, damaged or deteriorated hoses. Replace hoses and flexibles of which the lifetime expired. Use only the correct type and size of hose end fittings and connections.

   A hose connected to a 2 inch (50 mm) valve must be provided with a safety wire (Ø 8 mm) fixed to the hose (each 500 mm) for effective pressures as from 10 bar (145 psi) up, although it is recommended to apply such safeguard already from 4 bar (60 psi) up. The safety wire ends have to be attached, one to the eye provided next to the compressor air outlet valve, the other one to a point near to the air inlet of the applied equipment.

   Finally a wire mesh hose can be fixed over the hose ends to dampen the blast in case a connection starts leaking or should become undone.

   Close the compressor air outlet valve before connecting or disconnecting a hose. Ascertain that a hose is fully depressurized before disconnecting it.

   When blowing through a hose or air line, ensure that the open end is held securely. A free end will whip and may cause injury.

   Never play with compressed air. Never apply it to your skin or direct an air stream at people. Never use it to clean dirt from your clothes. When using it to clean down equipment, do so with extreme caution and use eye protection.

   Do not use compressed air from any type of compressor, without taking extra measures, for breathing purposes as this may result in injury or death. For breathing air quality, the compressed air must be adequately purified according to local legislation and standards.

   Breathing air must always be supplied at stable, suitable pressure.

11 Never move a unit when external lines or hoses are connected to the outlet valves, to avoid damage to valves and/or manifold and hoses.

12 Never refill fuel while the unit is running. Keep fuel away from hot parts such as air outlet pipes or the engine exhaust. Do not smoke when fuelling. When fuelling from an automatic pump, an earthing cable should be connected to the unit to discharge static electricity. Never spill nor leave oil, fuel, coolant or cleansing agent in or around the unit.

13 Never operate the unit in surroundings where there is a possibility of taking in flammable or toxic fumes.

14 Never operate the unit at pressures or speeds below or in excess of the limit ratings stated on the Principal Data sheet.

15 On water-cooled engines with closed cooling circuit: allow the unit to cool before removing a pressure cap.

16 All doors shall be shut during operation so as not to disturb the cooling air flow inside the body-work and/or render the silencing less effective. A door should be kept open for a short period only, e.g. for inspection or adjustment.

17 Wear ear protectors when environmental noise can reach or exceed 90 dB(A). Beware of long-time exposure to noise.

18 Periodically check that:
   - all safety equipment is in good working order,
   - all guards and air conducting baffles are in place and securely fastened,
   - all hoses and/or pipes inside the unit are in good condition, secure and not rubbing,
   - there are no fuel, oil or coolant leaks,
   - the tension of drive belts is correct,
   - all fasteners are tight,
   - all electrical leads are secure and in good order,
   - the engine exhaust system is in good condition,
   - air outlet valves and manifold, hoses, couplings, etc. are in good repair, free of wear or abuse,
   - the wheel nuts are tightened to the proper torque.

When more than one compressor is connected to a common header, be sure each compressor has a non-return valve (check valve) to prevent reverse rotation when stopping.

SAFETY DURING MAINTENANCE AND REPAIR

Maintenance and repair work shall only be carried out by adequately trained personnel; if required, under supervision of someone qualified for the job.

1 Use only the correct tools for maintenance and repair work.

2 Use only genuine spare parts.

3 All maintenance work, other than routine attention, shall only be undertaken when the unit is stopped. Ensure that the unit cannot be started inadvertently.

4 Before removing any pressurized component, effectively isolate the compressor from all sources of pressure and relieve the entire system of pressure. Do not rely on non-return valves (check valves) to isolate pressure systems.

5 Never use flammable solvents or carbon tetrachloride for cleaning parts. Take safety precautions against toxic vapours of cleaning liquids.

6 Scrupulously observe cleanliness during maintenance and when performing repairs. Keep dirt away by covering the parts and exposed openings with a clean cloth, paper or tape.

7 Never weld on or perform any operation involving heat near the fuel or oil systems. Fuel and oil tanks must be completely purged, e.g. by steam-cleaning, before carrying out such operations.

   Never weld on, or in any way modify, pressure vessels. Disconnect the alternator cables during arc welding on the unit.

8 Support the drawbar and the axle(s) securely if working underneath the unit or when removing a wheel. Do not rely on jacks.

9 Make sure that no tools, loose parts or rags are left in or on the unit.

10 Before clearing the unit for use after maintenance or overhaul, check that operating pressures, temperatures and speeds are correct and that the control and shut-down devices function correctly.

11 Do not remove any of, or tamper with, the sound-damping material. Keep the material free of dirt and liquids such as fuel, oil and cleansing agents.

12 Protect the electrical and regulating components, the air filter, etc. to prevent moisture from entering them, e.g. when steam-cleaning.

TOOL APPLICATIONS SAFETY

Apply the proper tool for each job. With the knowledge of correct tool use and knowing the limitations of tools, along with some common sense, many accidents can be prevented.

Special service tools are available for specific jobs and should be used when recommended. The use of these tools will save time and prevent damage to parts.

1 Use only spanners or sockets whose opening fits the fastener.

2 Apply an open-end spanner only in the plane of the fastener head, square to the thread axis. Never cock an open-end spanner.

3 Do not use a pipe or other improvised leverage extensions on handles.

4 Do not hammer on spanners or other tools which are not specially designed therefore.

5 Do not use adjustable spanners to tighten or slacken fasteners; they are intended to hold the other end of the fastener.

6 Always support the ratchet head when using socket extensions.

7 Discard any spanner with broken or battered points or edges.

8 Never use hand type sockets on power or impact tools.

9 Select only heavy-duty impact sockets for use with pneumatic or electric impact tools.

10 Replace sockets showing cracks or wear; keep sockets clean.

11 Never use screwdrivers for prying, punching, chiselling, scoring or scraping.

12 Use the correct type and size of screwdriver for the job. The bit must match the fastener.

13 A screwdriver with rounded edges will slip; it needs to be redressed or discarded.

14 Never use a screwdriver or any other tool near a live wire or electrical component. Plastic covering of handles is for comfort and grip only. They are not intended to act as insulation if such is not clearly marked by the manufacturer.

15 Never strike a hammer against a hardened object; use a soft drift against the object and strike against the drift.

16 Strike the object with the full face of the hammer.

17 Never use a hammer with a loose head.

18 Discard a hammer with chipped or mushroomed face.

19 Never use a chisel or punch with a chipped or mushroomed striking face.

20 Always pull on a spanner or socket handle, if possible, and adjust your stance to prevent a fall if something lets go.

21 Wear approved eye protection when using percussion tools or when scraping, chipping, shaving or grinding.

22 Wear protective gloves when holding a chisel or punch.

SPECIFIC SAFETY PRECAUTIONS

Batteries

1 The electrolyte in batteries is a sulphuric acid solution which is fatal if it hits your eyes, and which can cause burns if it contacts your skin. Therefore, be careful when handling batteries, e.g. when checking the charge condition.

2 Install a sign prohibiting fire, open flame and smoking at the post where batteries are being charged.

3 When batteries are being charged, an explosive gas mixture forms in the cells and might escape through the vent holes in the plugs.
Thus an explosive atmosphere may form around the battery if ventilation is poor, and can remain in and around the battery for several hours after it has been charged. Therefore:

- never smoke near batteries being, or having recently been, charged,
- never break live circuits at battery terminals, because a spark usually occurs.

4 When connecting an auxiliary battery (AB) in parallel to the unit battery (CB) with booster cables: connect the + pole of AB to the + pole of CB, then connect the - pole of CB to the mass of the unit. Disconnect in the reverse order.

Ether fuel systems

Ether fuel systems are used for diesel cold starting.

1 This type of fuel is extremely flammable, toxic and poisonous. Avoid contact with eyes or skin and breathing the fumes. If accidently swallowed, do not induce vomiting but call a physician immediately.

2 If fuel enters or fumes irritate the eyes, flush the latter with large quantities of clean water and call for medical aid.

3 Before operating ether cold starting aids, read the instructions and the container label.

4 Never operate ether cold starting aids while the engine is running as this can cause severe damage.

5 When maintenance, tests or repair has to be performed, do so in a well-ventilated area only, away from heat, open flame or sparks. Ascertain that the area is clearly marked out with signs prohibiting fire, open flame and smoking.

6 Wear eye protection when testing a system. Make sure that openings of a spray container, valve, tube or atomizer are pointed away from yourself and others while testing.

7 Do not store ether containers in temperatures above 70 °C (160 °F).

8 Do not incinerate, puncture or attempt to remove the centre core valve, side safety valve or any other part of an ether container.

Pressure vessels

(according to directive 87/404/EEC annex II § 2)

Maintenance/installation requirements:

1 The vessel can be used as pressure vessel or as separator and is designed to hold compressed air for the following application:
   – pressure vessel for compressor,
   – medium AIR/OIL,

   and operates as detailed on the data plate of the vessel:
   – the maximum working pressure ps in bar,
   – the maximum working temperature Tmax in °C,
   – the minimum working temperature Tmin in °C,
   – the capacity of the vessel V in l.

2 The pressure vessel is only to be used for the applications as specified above and in accordance with the technical specifications. Safety reasons prohibit any other applications.

3 National legislation requirements with respect to re-inspection must be complied with.

4 No welding or heat treatment of any kind is permitted to those vessel walls which are exposed to pressure.

5 The vessel is provided and may only be used with the required safety equipment such as manometer, overpressure control devices, safety valve, etc.

6 Draining of condensate shall be performed regularly when vessel is in use.

7 Installation, design and connections should not be changed.

8 Bolts of cover and flanges may not be used for extra fixation.

Safety valve

All adjustments or repairs are to be done by an authorized representative of the valve supplier.

Following checks must be carried out:

1 A check of the opening of the lifting gear, 1 or 2 times a year. This can be done by screwing the cap of the valve anti-clockwise.

2 A check of the set pressure once a year according to the local regulations, if required. This check may not be done with the compressor supplying the air pressure and must be carried out on a proper test bench.

INJURY PREVENTION

1 Stationary housing guards are provided on all rotating or reciprocating parts not otherwise protected and which may be hazardous to personnel. Machinery shall never be put into operation, when such guards have been removed, before the guards are securely reinstalled.

2 Do not open electrical cabinets, cubicles or other equipment while voltage is supplied. If such cannot be avoided, e.g. for measurements, tests or adjustments, have the action carried out by a qualified electrician only, with appropriate tools, and ascertain that the required bodily protection against electrical hazards is applied.

3 Noise, even at reasonable levels, can cause irritation and disturbance which, over a long period of time, may cause severe injuries to the nervous system of human beings.

When the sound pressure level, at any point where personnel normally has to attend, is:

below 70 dB(A): no action needs to be taken,

above 70 dB(A): noise-protective devices should be provided for people continuously being present in the room,

below 85 dB(A): no action needs to be taken for occasional visitors staying a limited time only,

above 85 dB(A): room to be classified as a noise-hazardous area and an obvious warning shall be placed permanently at each entrance to alert people entering the room, for even relatively short times, about the need to wear ear protectors,

above 95 dB(A): the warning(s) at the entrance(s) shall be completed with the recommendation that also occasional visitors shall wear ear protectors,

above 105 dB(A): special ear protectors that are adequate for this noise level and the spectral composition of the noise shall be provided and a special warning to that effect shall be placed at each entrance.

4 Insulation or safety guards of parts the temperature of which can be in excess of 80 °C (175 °F) and which may be accidentally touched by personnel shall not be removed before the parts have cooled to room temperature.

5 When hot parts have to be handled, e.g. shrink fitting, special heat-resistant gloves shall be used and, if required, other body protection shall be applied.

6 If the working process produces fumes, dust or vibration hazards, etc., take the necessary steps to eliminate the risk of personnel injury.

7 Before lifting machines, all loose parts which could be liable to fall down shall be removed or secured; pivoting parts such as doors, drawbars, etc. shall be safely immobilized.

8 To lift heavy parts, a hoist of ample capacity, tested and approved according to local safety regulations, shall be used.

9 When lifting machinery or parts with one or more lifting eyes, only hooks or shackles meeting local safety regulations shall be applied. Never shall cables, chains or ropes be applied directly on or through lifting eyes. Never allow sharp bends in lifting cables, chains or ropes.

10 Lifting hooks, eyes, shackles, etc. shall never be bent and shall only have stress in line with their design load axis. The capacity of a lifting device diminishes when the lifting force is applied at an angle to its load axis.

11 For maximum safety and efficiency of the lifting apparatus all lifting members shall be applied as near to perpendicular as possible. If required, a lifting beam shall be applied between hoist and load.

12 When heavy parts are being lifted with a hoist, it is strictly forbidden to dwell or pass under the load or in the space which is liable to be hit if the load or part of it should topple over or come loose. Never leave a load hanging on a hoist. Lifting acceleration and retardation shall be kept within safe limits.

13 A hoist has to be installed in such a way that the object will be lifted perpendicular. If that is not possible, the necessary precautions must be taken to prevent load-swinging, e.g. by using two hoists, each at approximately the same angle not exceeding 30¡ from the vertical.

14 When using compressed air or inert gas to clean down equipment, do so with caution and use the appropriate protection, at least safety glasses, for the operator as well as for any bystander. Do not apply compressed air or inert gas to your skin or direct an air or gas stream at people. Never use it to clean dirt from your clothes.

15 Before blowing compressed air or inert gas through a hose, ensure that the open end is held securely, so that it cannot whip and cause injury.

16 When washing parts in or with a cleaning solvent, provide the required ventilation and use appropriate protection such as a breathing filter, safety glasses, rubber apron and gloves, etc.

17 Safety shoes should be compulsory in any workshop and if there is a risk, however small, of failing objects, wearing of a safety helmet should be included.

18 If there is a risk of inhaling hazardous gases, fumes or dust, the respiratory organs must be protected and, depending on the nature of the hazard, so must the eyes and skin.

19. Remember that where there is visible dust, the finer, invisible particles will almost certainly be present too; but the fact that no dust can be seen is not a reliable indication that dangerous, invisible dust is not present in the air.

20 When using cartridge type breathing filter equipment, ascertain that the correct type of cartridge is used and that its useful service life is not surpassed.

SAFETY PRECAUTIONS FOR GENERATORS DDG

In addition to normal safety rules which must be observed with generators, the following safety precautions listed hereafter are stressed.

Installation precautions

1 The electrical connections shall correspond to the local codes. The machines shall be earthed and protected against short circuits by fuses or circuit breakers.

2 Damaged cables and insufficient tightening of connections may cause electric shocks. Replace damaged cables and make sure that all electric connections are securely tightened.

Operation precautions

1 Never operate the generator in excess of its limits as indicated in the technical specifications and avoid long no-load sequences.

2 Never operate the generator in a humid atmosphere. Excessive moisture causes worsening of the generator insulation.

3 Never touch the power terminals during operation of the machine.

4 Periodically check that:

- All guards are in place and securely fastened.
- All hoses, cables and/or pipes inside the generator are in good condition, secure and not rubbing.
- There are no leaks.
- All fasteners are tight.
- All electrical wirings are secure and in good order.

5 Whenever an abnormal condition arises, e.g. excessive vibration, noise, odour, etc., switch the circuit breakers to OFF and stop the engine. Correct the faulty condition before re-starting.

6 Earth the generator as well as the load properly.

7 Check the electrical cables regularly. Whenever damaged wires or dangerous conditions are observed, switch the circuit breakers to OFF and stop the engine. Replace the damaged wires or correct the dangerous condition before re-starting.

8 Avoid overloading the generator. The generator is provided with circuit breakers for overload protection. When a breaker has tripped, reduce the concerned load before re-starting.

9 If the generator is used as stand-by for the mains supply, it must not be operated without control system which automatically disconnects the generator from the mains when the mains supply is restored.

10 Never remove the cover of the output terminals during operation. Before connecting or disconnecting wires, switch off the load and the circuit breakers, stop the machine and make sure that the machine cannot be started inadvertently or there is any residual voltage on the power circuit.

11 Never connect the generator outlets to an installation which is also connected to a public mains.

12 Before connecting a load, switch off the corresponding circuit breaker, and check whether frequency, voltage, current and power factor comply with the ratings of the generator.

Maintenance precautions

Before clearing the generator for use after maintenance or overhaul, submit it to a testrun, check that the AC power performance is correct and that the control and shut-down devices function correctly.

2. LEADING PARTICULARS

2.1 DESCRIPTION OF SAFETY PICTOGRAMS USED IN THIS MANUAL

This symbol draws your attention to dangerous situations. The operation concerned may endanger persons and cause injuries.

This symbol is followed by supplementary information.

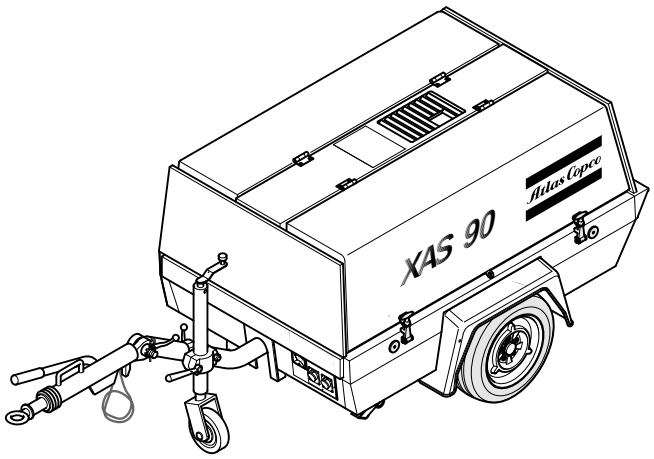


Fig. 2.1 General view of XA(S)90 DdG
(adjustable towbar with brakes is option)

2.2 GENERAL DESCRIPTION

The XA(S)90 DdG is an XA(S)90 Dd compressor with a built-in 9/5.5 kVA; 400/230V-50 Hz generator. The compressor may be loaded separately or simultaneously with the generator. When operating simultaneously, the maximum effective working pressure must not exceed 6 bar.

– Engine
The compressor is driven by an air/oil-cooled KHD diesel engine.

– Compressor
The compressor casing houses two screw-type rotors, mounted on ball and roller bearings. The female rotor, driven by the engine, drives the male rotor. The male rotor has four lobes and the female rotor has six flutes. Thus, the male rotor revolves at 1 1/2 times the speed of the female rotor. The element delivers pulsation-free air.

Injected oil is used for sealing, cooling and lubricating purposes.

– Compressor oil system
The oil is boosted by air pressure.
The system has no oil pump.

The oil is removed from the air, in the air/oil vessel first by centrifugal force, second through the oil separator element.

The vessel is provided with an oil level indicator.

– Regulation
The compressor is provided with a continuous regulating system and a blow-down valve. The valve is closed during operation by outlet pressure of the compressor element and opens by air receiver pressure when the compressor is stopped.

When the air consumption increases, the air receiver pressure will decrease and vice versa.

This receiver pressure variation is sensed by the regulating valve which, by means of control air to the unloader and engine speed regulator, matches the air output to the air consumption. The air receiver pressure is maintained between the pre-selected working pressure and the corresponding unloading pressure.

– Cooling system
The compressor is provided with an oil cooler.
The cooling air is generated by a fan, driven by the compressor element.

– Safety devices
A thermal shut-down switch protects the compressor against overheating. The air receiver is provided with a safety valve.

The engine is equipped with a low oil pressure shut-down switch.

– Frame and axle
The compressor/engine unit is supported by rubber buffers in the frame.

The standard XA(S)90 DdG has a non-adjustable towbar with a towing eye.

As an option the unit can be equipped with an adjustable towbar, an overrun and parking brake and a ball coupling type DIN, ITA, NATO or GB.

– Bodywork
The bodywork has openings at the shaped front and rear end for the intake and outlet of cooling air, hinged side doors for maintenance and service operations. The XAS90 DdG bodywork is internally lined with sound-absorbing material.

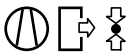
– Lifting eye
A lifting eye is accessible when a small door at the top of the unit is unlocked.

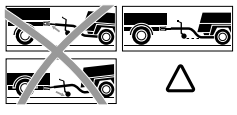
– Control panel
The control panel grouping the air pressure gauge, control switch etc., is placed behind a small transparent panel at the right hand/ rear end.

– Data plate
The compressor is furnished with a data plate showing the serial number, maximum final pressure and normal working pressure (See chapter 9).

– Generator
The Atlas Copco portable compressor XA(S)90 DdG is equipped with a Geko asynchron generator. The generator is driven through a multi-V-belt by the engine's crankshaft. The outlet sockets are mounted on the front-left sheetmetal cover of the compressor. The switchboard is mounted internally.

2.3 MARKINGS AND INFORMATION LABELS

	Compressor outlet pressure.
	Dangerous exhaust.
	Danger, heat flat.
	Electrocution hazard.
	Atlas Copco compressor oil.
	Atlas Copco engine oil.
	Read manual.
	Read the instruction manual before working on the battery.
	Hours, time.
	Prohibition to open air valves without connected hoses.
	Compressor loaded.
	Runlamp.
	Airfilter.
	Compressor temperature too high.
	Rotation direction.
	Inlet.
	Outlet.
	Compressor oil drain.
	Read the instruction manual before starting.

	Service every 24 hours.
	Warning ! Part under pressure.
	Do not stand on outlet valves.
	Start-Stop indication of switch.
	Do not run the motor with open doors.
	Lifting permitted.
	Use diesel fuel only.
3.7 bar / 54 psi	Tyre pressure.
	Battery.
	Pushbutton.
	Circuit breaker.
	Engine preheat.
	Engine start switch.
	Oil pressure engine.
	Sound power level in accordance with Directive 84/533/EC (expressed in dB (A)).
	Horizontal towbar position required in case of coupling.
	Earthing connections.
0 1	Generator 0 = OFF 1 = ON

2.4 MAIN PARTS

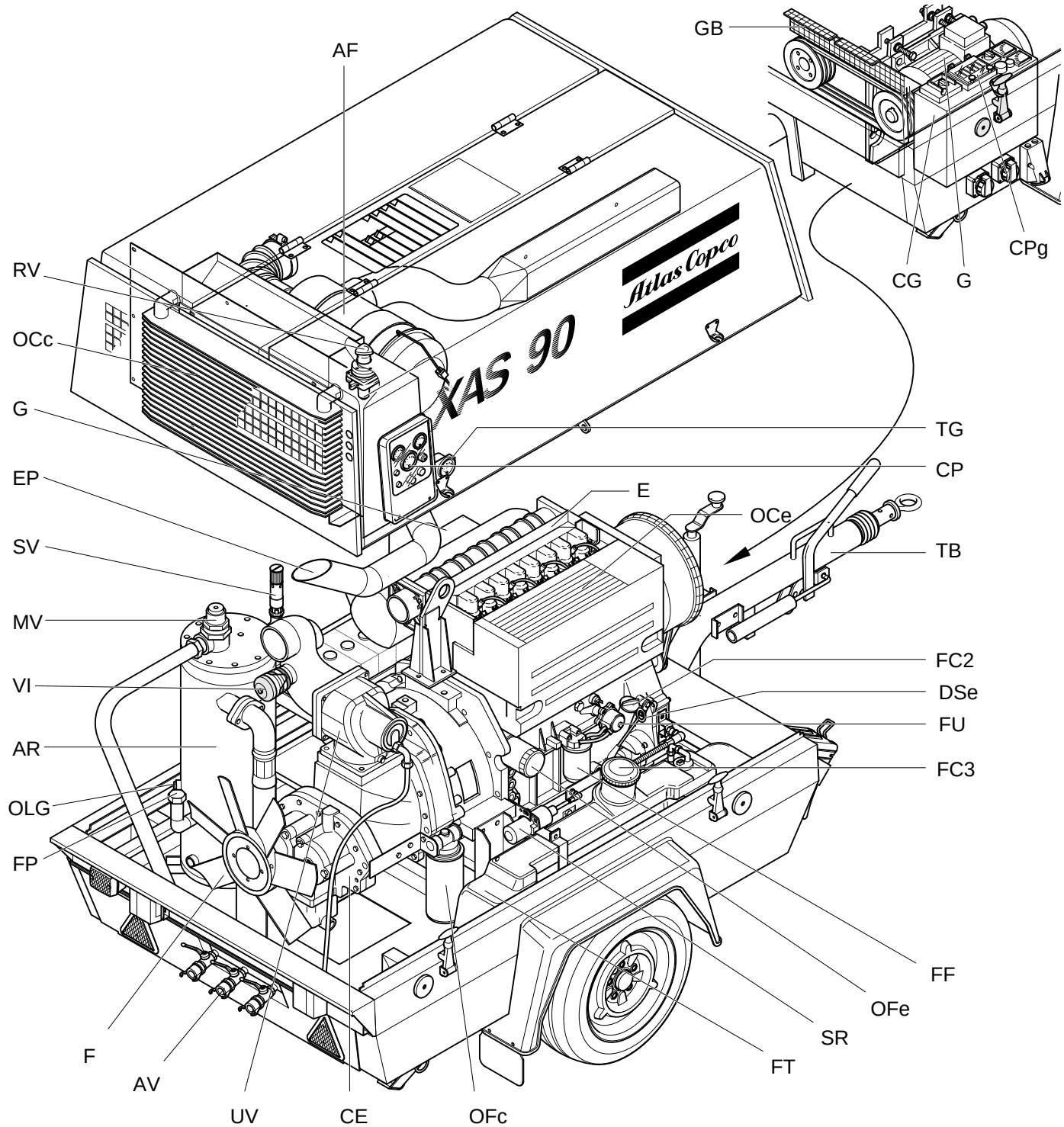


Fig.2.2 Main parts of XA(S)90 DdG (adjustable towbar, brakes and roadsignalisation are options)

AF	Air filter (for engine and compressor)	FC1	Filler cap, engine oil	OCc	Oil cooler compressor
AR	Air receiver	FC2	Filler cap, fuel tank	OFc	Oil filter, compressor
AV	Air outlet valves	FF	Fuel filter	OFe	Oil filter, engine
CE	Compressor element	FP	Filler plug, compressor oil	OLG	Oil level gauge
CG	Cubicle generator	FT	Fuel tank	RV	Regulating valve
CP	Control panel	FU	Fuel pump	SR	Speed regulator
CPg	Control panel generator	G	Generator	SV	Safety valve
DSe	Engine oil level dipstick	GB	Guard, belt drive	TB	Towbar
E	Engine	ML	Manual stop lever	TG	Air outlet temperature gauge
EP	Exhaust pipe	MV	Minimum pressure valve	UV	Unloader valve
F	Fan	OCe	Oil cooler engine	VI	Vacuum indicator

SPEED REGULATING AND UNLOADING SYSTEM

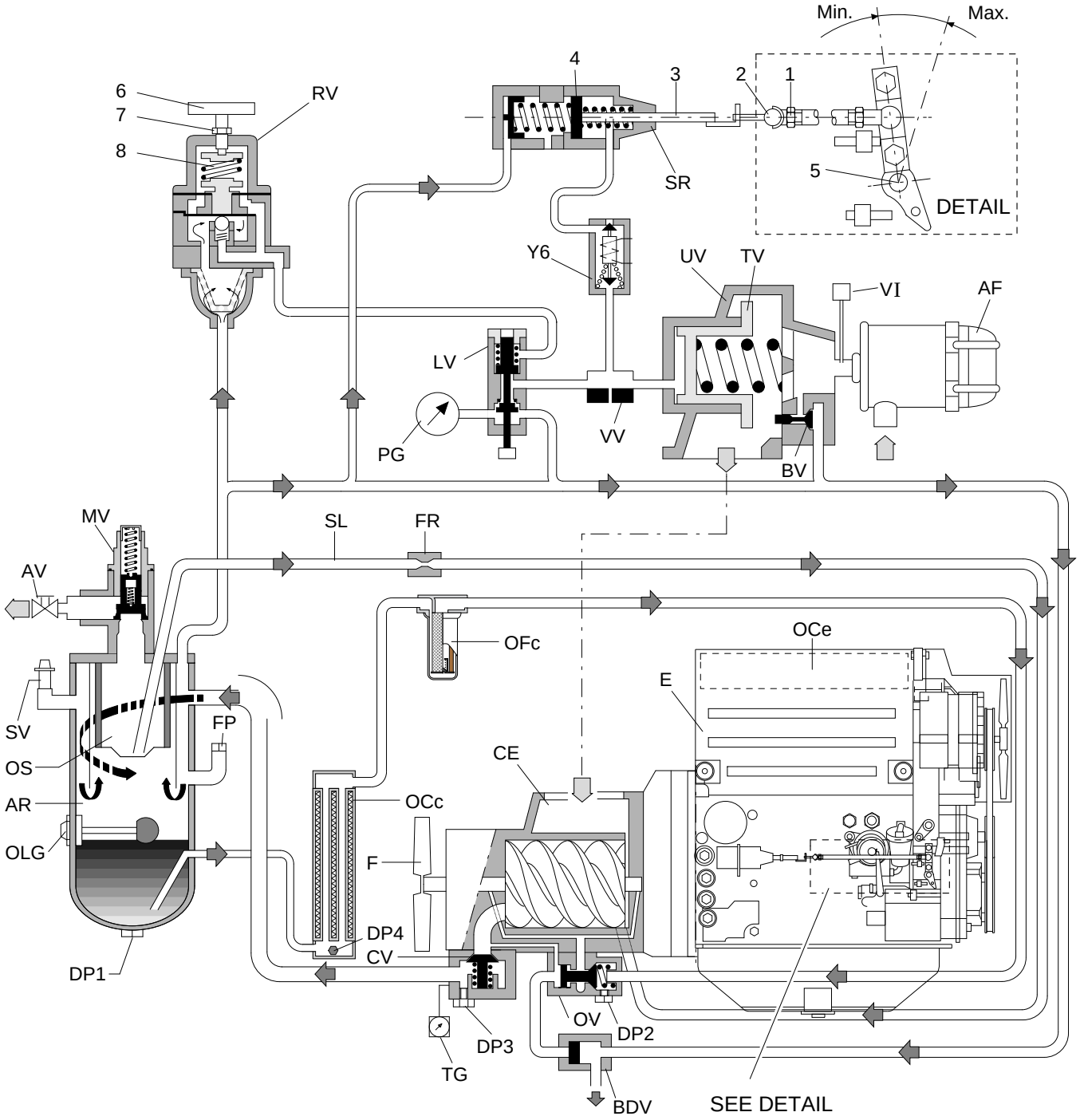


Fig. 2.3 Speed regulating and unloading system

AF	Air filter (for engine and compressor)	FR	Flow restrictor, oil scavenging line	TV	Throttle valve
AR	Air receiver	LV	Loading valve	UV	Unloader valve
AV	Air outlet valves	MV	Minimum pressure valve	VI	Vacuum indicator
BDV	Blow-down valve	OCc	Oil cooler compressor	VV	Venting valve
BV	Bleeder valve	OCe	Oil cooler engine	Y6	Solenoid valve for maximum speed of engine
CE	Compressor element	OFc	Oil filter, compressor	1.	Check nut, ball joint
CV	Check valve	OLG	Oil level gauge	2.	Ball-and-socket joint
DP1	Drain plug, oil tank	OS	Oil separator element	3.	Piston rod
DP2	Drain plug, oil stop valve	OV	Oil stop valve	4.	Piston
DP3	Drain plug, check valve	PG	Working pressure gauge	5.	Engine speed control lever
DP4	Drain plug, oil cooler	RV	Regulating valve	6.	Adjusting wheel, working pressure
E	Engine	SL	Scavenge line	7.	Check-nut, adjusting wheel
F	Fan	SR	Speed regulator	8.	Spring
FP	Filler plug, compressor oil	SV	Safety valve		
		TG	Air/oil temperature gauge		

2.5 AIR FLOW (SEE FIG. 2.3)

The system comprises:

AF	Air filter
AR/OS	Air receiver/oil separator
CE	Compressor element
UV	Unloader valve
BDV	Blow-down valve

Air drawn through the airfilter (AF) into the compressor element is compressed. At the element outlet, compressed air and oil pass into the air receiver/oil separator (AR/OS).

The check valve prevents blow-back of compressed air when the compressor is stopped. In the air receiver/oil separator (AR/OS), most of the oil is removed from the air/oil mixture; the remaining oil is removed by the separator element.

The oil collects in the receiver and on the bottom of the separator element.

The air leaves the receiver via the minimum pressure valve (MV), which prevents the receiver pressure from dropping below the minimum working pressure (see section 8), even when the air outlet valves are open. This ensures adequate oil injection and prevents oil consumption. On units with an aftercooler, the compressed air is discharged through the outlet valve(s) via the aftercooler, where the air is cooled down to approx. 25 °C above the ambient temperature and water separator. When the unit is stopped, the non-return valve of the minimum pressure valve (MV) prevents blow-back and the blow-down valve (BDV) depressurises the air receiver (AR).

A temperature gauge (TG) and a working pressure gauge (PG) are comprised in the system.

2.6 OIL SYSTEM (SEE FIG. 2.3)

The system comprises:

AR/OS	Air receiver/oil separator
OC	Oil cooler
OF	Oil filter

The lower part of the air receiver (AR) serves as oil tank.

Air pressure forces the oil from the air receiver/oil separator (AR/OS) through the oil cooler (OC) and oil filter (OF) to the compressor element (CE).

The compressor element has an oil gallery in the bottom of its casing. The oil for rotor lubrication, cooling and sealing is injected through holes in the gallery.

Lubrication of the bearings is ensured by oil injected into the bearing housings.

The injected oil, mixed with the compressed air, leaves the compressor element and re-enters the air receiver, where it is separated from the air as described in section 2.5. The oil that collects in the bottom of the oil separator element is returned to the system through scavenging line (SL), which is provided with a flow restrictor (FR).

The oil filter by-pass valve opens when the pressure drop over the filter is above normal because of a clogged filter. The oil then by-passes the filter without being filtered. For this reason, the oil filter must be replaced at regular intervals (see section 4.2).

2.7 SPEED REGULATING AND UNLOADING SYSTEM (SEE FIG. 2.3)

The system comprises:

RV	Regulating valve
UV	Unloader valve
SR	Speed regulator

When the air consumption increases, the air receiver pressure will decrease and vice versa. This receiver pressure variation is sensed by the regulating valve which, by means of control air to the unloader valve (UV), matches the air output to the air consumption. The air receiver pressure is maintained between the pre-selected working pressure and the corresponding unloading pressure.

The air output is controlled from maximum output (100%) to no output (0%) by:

1. Speed control of the engine between maximum load speed and unloading speed (the output of a screw compressor is proportional to the rotating speed).
2. Air inlet throttling.

If the air consumption is equal to or exceeds the maximum air output, the engine speed is held at maximum load speed and the throttle valve (TV) is fully open.

If the air consumption is less than the maximum air output, the regulating valve (RV) supplies control air to speed regulator (SR) and unloader valve (UV) to reduce the air output and holds air receiver pressure between the normal working pressure and the corresponding unloading pressure of approx. 1.5 bar above the normal working pressure.

When the air consumption is resumed, the throttle valve (TV) gradually opens the air intake and the speed regulator (SR) increases the engine speed.

The construction of the regulating valve (RV) is such that any increase (decrease) of the air receiver pressure above the pre-set valve opening pressure results in a proportional increase (decrease) of the control pressure to the throttle valve (TV).

Part of the control air is vented to atmosphere, and any condensate discharged, through the venting valve (VV).

A solenoid valve (Y6) is installed in the control line to the speed regulator (SR) to maintain the engine speed control lever (5) in the maximum position when using the generator.

2.8 ELECTRICAL SYSTEM

2.8.1 CIRCUIT DIAGRAM COMPRESSOR

The compressor is equipped with a negative earthed system.

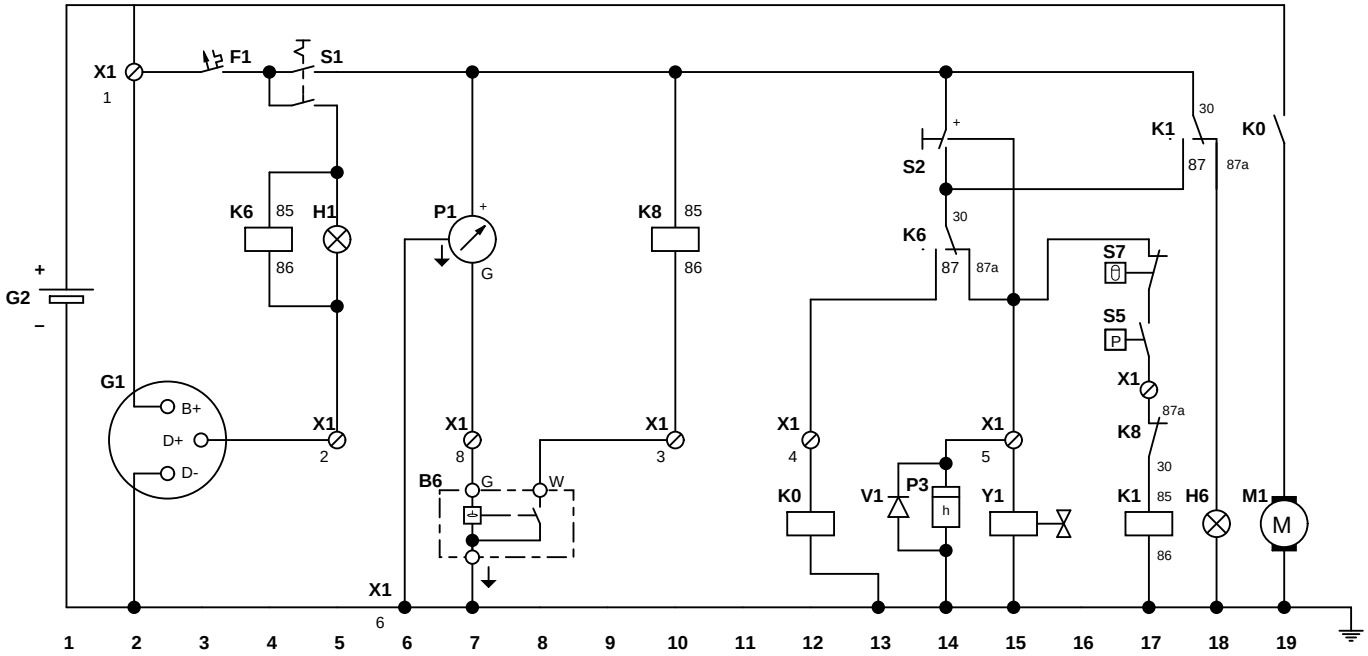


Fig. 2.4 Circuit diagram compressor(Nr. 9820 1412 02)

B6 Engine fuel level sensor/shut-down switch
F1 Circuit breaker (10A)
G1 Alternator
G2 Battery
H1 Alternator charging indicator lamp
H6 Alarm lamp, shut-down switches
K0 Starter solenoid
K1 Shut-down relay, compressor temperature and engine oil pressure
K6 Starter motor protection relay
K8 Shut-down relay
M1 Starter motor
P1 Fuel level gauge
P3 Hour meter
S1 ON-OFF switch
S2 Override/start switch
S5 Engine oil pressure shut-down switch
S7 Compressor temperature shut-down switch
V1 Diode
X1 Plug
Y1 Engine stop solenoid
Y6 Solenoid valve speed regulator (generator action)

2.8.2 DESCRIPTION OF THE ELECTRIC CIRCUIT/COMPRESSOR

1. Closing ON/OFF switch (S1) supplies voltage to:
   - charging indicator lamp (H1), which lights up
   - fuel level gauge (P1)
   - relay (K6), which makes contact (30-87), closing the line between switch (S2) and starter solenoid (K0)
   - alarm lamp (H6), which lights up.
2. Depressing override/start switch (S2) supplies voltage to:
   - engine stop solenoid (Y1) and hour meter (P3), which respectively open the engine fuel supply and start counting
   - starter solenoid (K0) via relay (K6) contact (30-87). Solenoid (K0) engages the starter motor (M1), which cranks the engine.
3. When alternator (G1) starts charging, its built-in voltage regulator de-energises relay (K6) and extinguishes lamp (H1).

   Relay (K6) makes contact (30-87a), opening the line to solenoid (K0), the contact of which opens and disengages starter motor (M1).
4. After the engine oil pressure has built up sufficiently, engine oil pressure switch (S5) closes its contact, energising relay (K1).

   Relay (K1) makes contact (30-87). Lamp (H6) goes out.
5. Releasing override/start switch (S2) interrupts overriding of the shut-down circuit. Solenoid (Y1), hourmeter (P3) and relay (K1) remain energised over relay (K1) contact (30-87) and over relay (K6) contact (30-87a).

Engine safety shut-down

1. If engine oil pressure shut-down switch (S5) or compressor temperature shut-down switch (S7) opens, relay (K1) will be de-energised, breaking contact (30-87) and making contact (30-87a).

   The engine stop solenoid (Y1) is released, the engine stops and alarm lamp (H6) lights up.
2. The same happens in the event the fuel level shut-down switch (B6) closes, but in this case relay (K8) is energised and its contact (30-87a) breaks the circuit to relay (K1).
3. Circuit breaker (F1) will cut out if an overload occurs in the engine stop solenoid circuit or in case of short circuit. It can be reset after a short period of cooling off by pressing its push button.

2.8.3 CIRCUIT DIAGRAM GENERATOR

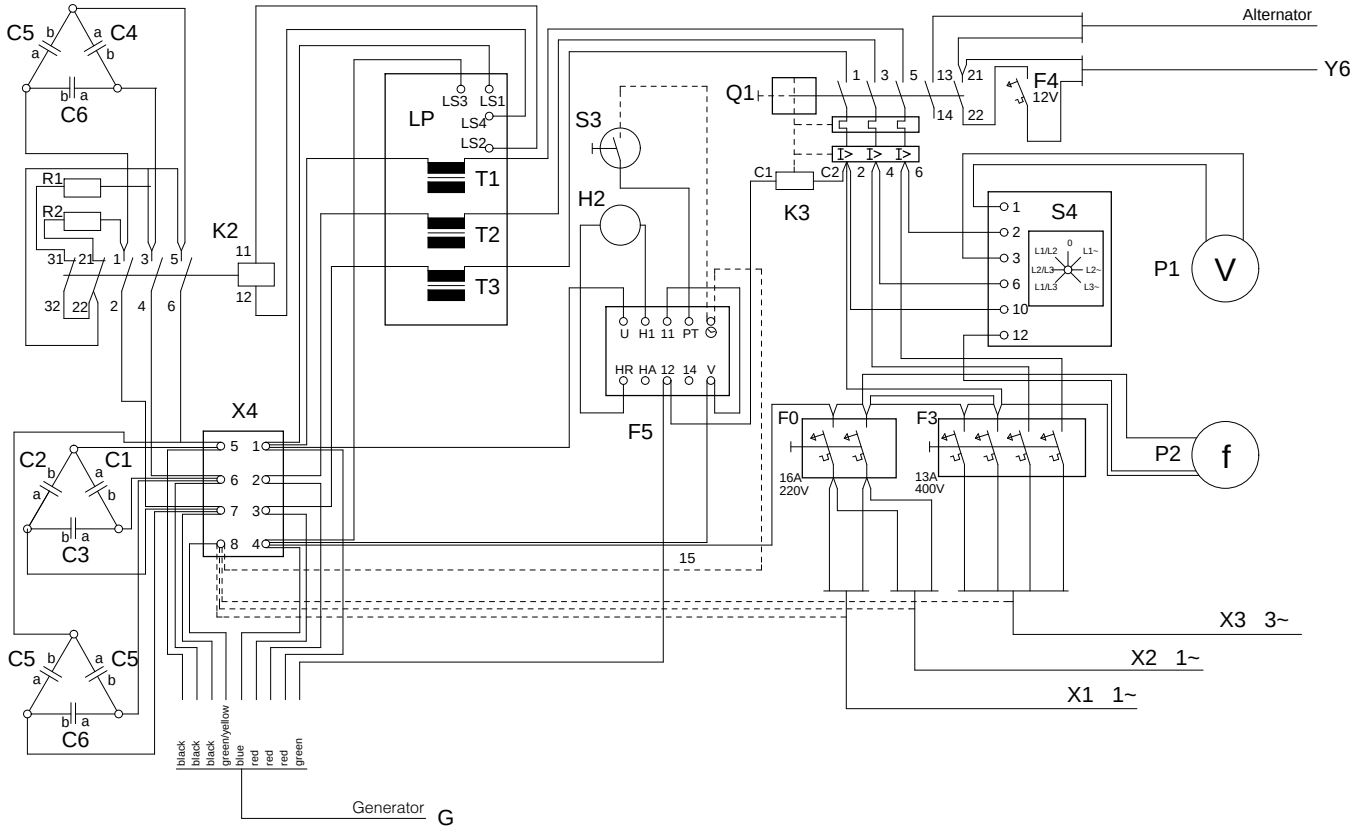


Fig. 2.5 Circuit diagram generator (Nr. 9822 0615 03)

C1-C6	Capacitor group (Residual stimulus)
C7-C9	Capacitor group (Starting amplifying)
F0	Circuit breaker (1~)
F3	Circuit breaker (3~)
F4	Fuse
F5	Isolation monitoring
G	Generator
H2	Lamp ISO failure (red)
K2	Contactor
K3	Circuit breaker operating current
LP	Circuit board starting amplification
P1	Voltmeter
P2	Frequencymeter
Q1	Main switch
R1, R2	Resistance
S3	Pushbutton ISO
S4	Selector switch
X1, X2	Outlet socket (230 V - 50 Hz)
X3	Outlet socket (400 V - 50 Hz)
X4	Terminal board (Cubicle)
Y6	Solenoid valve

2.8.4 DESCRIPTION OF THE GENERATOR SYSTEM

For description of the generator system consult the generator operation manual.

3. OPERATING INSTRUCTIONS

3.1 PARKING, TOWING AND LIFTING INSTRUCTIONS

Safety precautions

The operator is expected to apply all relevant safety precautions, including those mentioned on the inside of the cover of this book.

Attention:

- Before putting the compressor in to use, check the brake system as described in section 5.6.
- After the first 100 km travel:
  - Check and retighten the wheel nuts and towbar bolts to the specified torque. See section 8.1.
  - Check the brake adjustment. See section 5.6.

3.1.1 PARKING INSTRUCTIONS

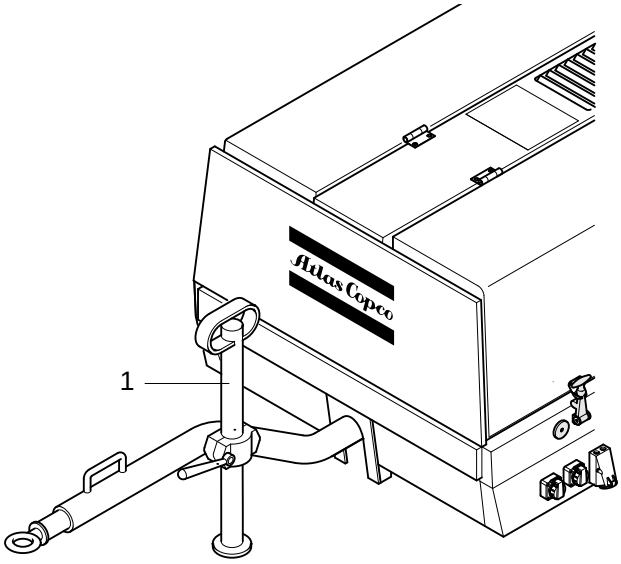


Fig. 3.1 Non-adjustable towbar without brakes

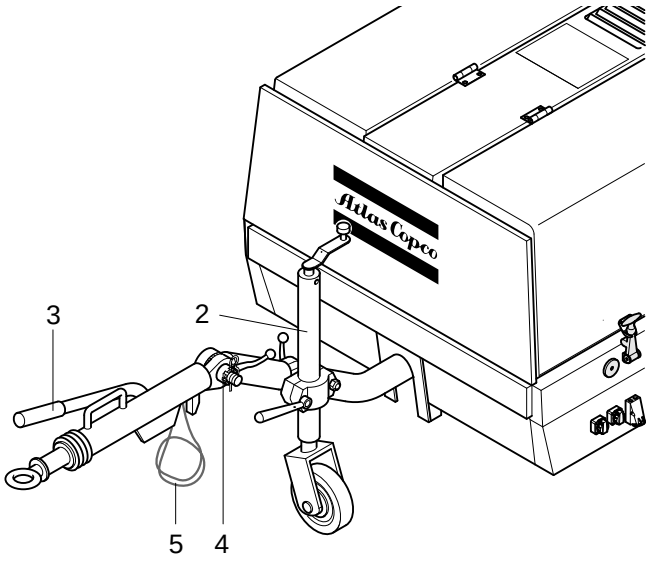


Fig. 3.2 Adjustable towbar with brakes

When parking a compressor, secure prop (1) or nose wheel (2) to support the compressor in a level position. Apply parking brake (3). Place the compressor as level as possible; however, it can be operated temporarily in an out-of-level position not exceeding 15°. If the compressor is parked on sloping ground, immobilize the compressor by placing wheel chocks in front of or behind the wheels. Locate the compressor upwind, away from contaminated wind-streams and walls. Avoid recirculation of exhaust air from the engine. This causes overheating and engine power decrease.

3.1.2 TOWING INSTRUCTIONS

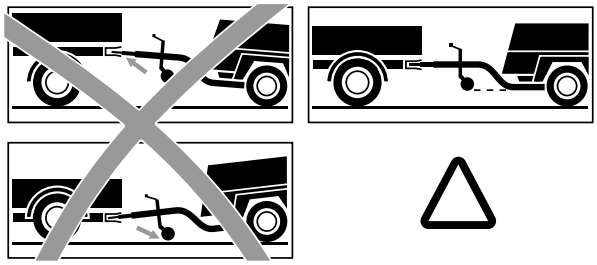


Fig. 3.3 Label on towbar, towing instructions

Before towing the compressor, make sure that the towing equipment of the vehicle matches the towing eye or ball connector.

For non-adjustable - and adjustable towbar the towbar should be as level as possible and the compressor and towing eye end in a level position. Turn the locking handles in such a way that there is no clearance between the teeth of the joints; this can be checked by trying to move the towbar up and down at the towing eye. Mount safety pins (4). Push hand brake lever (3) downwards and connect breakaway cable (5) to the vehicle. Secure nose wheel (2) or prop (1) in the highest position so that the nose wheel is prevented from turning.

3.1.3 LIFTING INSTRUCTIONS

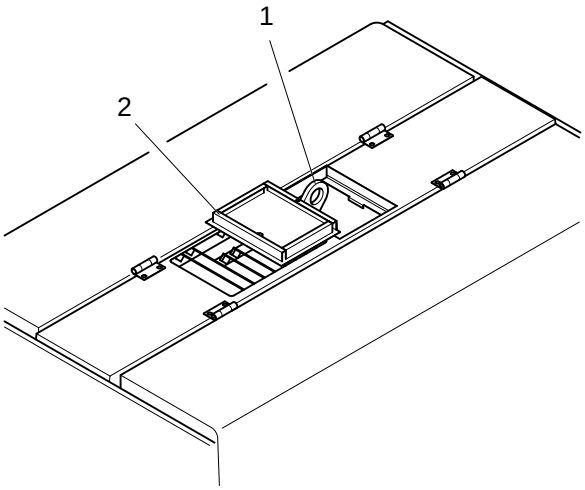


Fig. 3.4 Lifting eye

When lifting the compressor, the hoist has to be placed in such a way that the compressor, which must be placed level, will be lifted vertically.

Preferably use the lifting eye (1) after opening the small door (2).

Lifting acceleration and retardation must be kept within safe limits (max. 2xg).
Helicopter lifting is not allowed.

3.2 BEFORE STARTING

If the compressor is to be connected to a common compressed air system, fit an appropiate check valve between compressor outlet and air system.

Observe the right mounting position/direction !

1. Before initial start-up or after a storage period of 3 months and longer, remove the flexible between air filter (AF- Fig. 2.3) and unloader valve (UV- Fig. 2.3) and pour 1 liter of oil into compressor element (CE- Fig. 2.3) via the unloader valve. See section 4.3 for the oil to be used. Reinstall the flexible.
2. Before initial start-up, prepare battery for operation if not already done. See section 4.7.
3. With the compressor standing level, check the level of the engine oil. Add oil, if necessary, to the upper mark on dipstick. Consult the Engine Operation Manual for the type and viscosity grade of the engine oil.
4. Check the level of the compressor oil. The pointer of oil level gauge (OLG- Fig. 2.3) should register in the green range. Add oil if necessary. See section 4.3 for the oil to be used.

Before removing oil filler plug (FP- Fig. 2.3), ensure that the pressure is released by opening an air outlet valve.

5. Check that the fuel tank contains sufficient fuel. Top up, if necessary. Consult the Engine Operation Manual for the type of fuel.
6. Drain any water and sediment from the fuel filter (FF) until clean fuel flows from the drain cock.
7. Empty the dust trap of the air filter (AF).
8. Check the air filter vacuum indicator (VI- Fig. 2.3).
   If the yellow piston reaches the red marked service range, service or replace the filter element.
   Reset the indicator by pushing the reset button.
9. Open an air outlet valve to allow air flow to the atmosphere.

3.3 STARTING/STOPPING

3.3.1 GENERAL

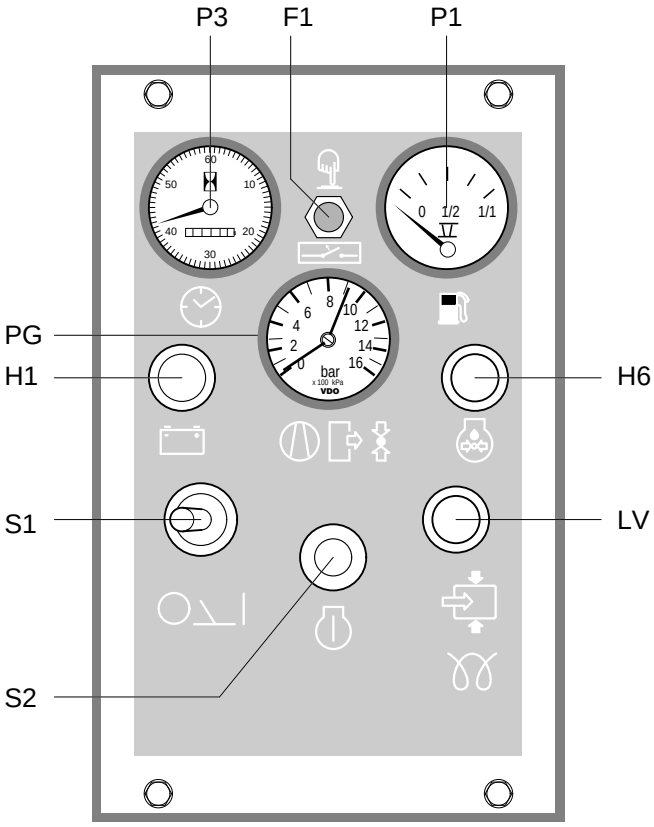


Fig. 3.5 Control panel general

F1	Circuit breaker
H1	Alternator charging indicator lamp
H6	Alarm lamp, shut-down switches
LV	Loading valve
P1	Fuel level gauge
P3	Hour meter
PG	Working pressure gauge
S1	ON-OFF switch
S2	Override/start switch

To start the unit:

1 Move ON/OFF switch (S1) to "I" and check that alternator charging indicator lamp (H1) and alarm lamp (H6) are alight.

2 Press and keep override/start switch (S2) depressed to override the shut-down circuit and to engage the starter motor.

3 Alternator charging indicator lamp (H1) and alarm lamp (H6) go out within approx. 10 seconds after starting, depending on the operating conditions. Release override/start switch (S2) as soon as both lamps (H1 and H6) are out.

If alarm lamp (H6) does not go out within 10 seconds from starting, stop the engine at once and inspect its lubricating system.

Wait a few minutes between each starting attempt.

If the engine fails to start three times, consult the Engine Operation Manual to localise the cause and remedy.

For starting in extremely cold conditions, consult the Engine Operation Manual.

4 Run the engine a few minutes at no-load to warm up. During this period, check the pressure on gauge (PG).

5 When the engine is running smoothly, press loading valve (LV) and release as soon as pressure starts building up.

6 When the unloading pressure shows on gauge (PG), the unloader has unloaded the compressor.

7 Open the air outlet valve(s) (AV).

To stop the unit:

1 Close the air outlet valve (s) (AV) and run the compressor unloaded for some minutes.

2 Move ON/OFF switch (S1) to "0".

3 Fill the fuel tank at the end of each day's operation. This prevents moisture from condensing on the inside of the tank and contaminating the fuel with water.

If necessary, the compressor can be stopped by operating the engine's manual stop lever (ML).

Fault situations and protective devices:

– The starter motor is protected against prolonged starting or against attempts to start when the group is already running.

– A fault which occurs with the engine, either: oil pressure (too low) or alternator voltage (too low) will always and immediately cause the engine to cut out and the control lamp (H6) will light up. By doing some simple checks, it can be determined what it was that caused the engine to fail: low oil level, clogged-up cooler, slack alternator belt tension or broken belt .

– When the outlet temperature of the element becomes too high, a thermocontact will also switch off the group immediately. Alarm lamp (H6) will go on.

Both control lamps will remain on until the group has been restarted or the contact is turned off; also when, due to cooling off, the thermocontact has closed again.

3.3.2 GENERATOR FUNCTION

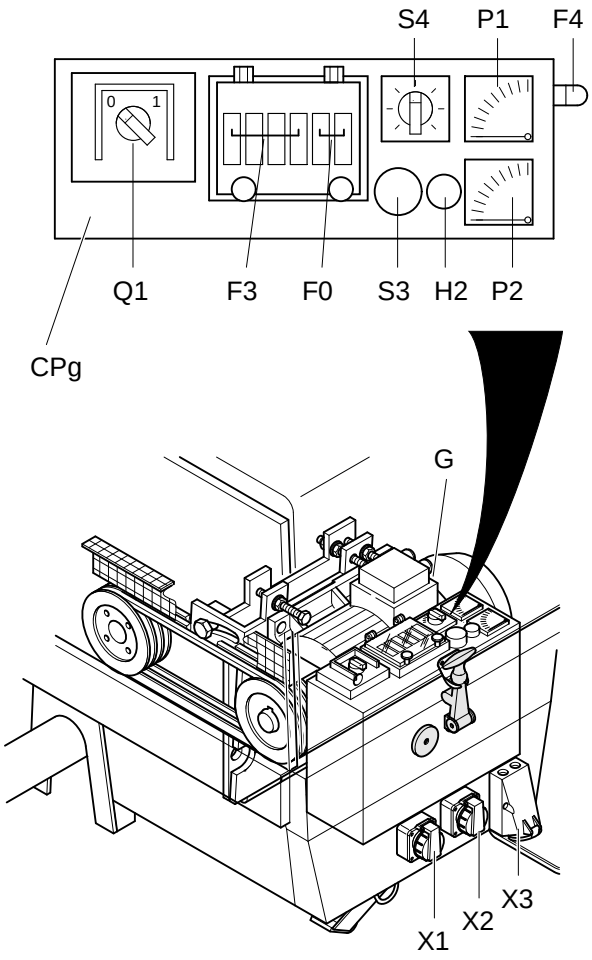


Fig. 3.6 generator assembly

CPg	Control panel generator	P2	Frequencymeter
F0	Circuit breaker	Q1	Main switch
F3	Circuit breaker	S3	Pushbutton ISO
F4	Fuse	S4	Selector switch
G	Generator	X1	Outlet socket 230V-50Hz
H2	Lamp ISO failure (red)	X2	Outlet socket 230V-50Hz
P1	Voltmeter	X3	Outlet socket 400V-50Hz

The main switch (Q1) is an engine safety switch which cuts out automatically during overload. Additionally the main switch automatically cuts out if there is a fault in the insulation or if through overheating of the generator. The voltmeter (P1) can, by using the selector switch (S4) be used to measure voltage between different phases and neutral.

This generator can be operated without earthing.

Check every day (with engine running):

1. Switch ON main switch Q1
2. Operate push button S3
3. Check whether main switch Q1 cuts out.

Generator may only be operated when main switch Q1 cuts out.

3.4 DURING OPERATION

The doors must be closed during operation and may be opened for short periods only.

Regularly carry out following checks:

1 That regulating valve (RV) is correctly adjusted, i.e. starts decreasing the engine speed when reaching the preset working pressure in the receiver.

2 The air outlet temperature (TG- Fig. 3.7) of the compressor element.

3 Check the air filter vacuum indicator (VI- Fig. 2.3). If the yellow piston reaches the red marked service range, service or replace the filter element. Reset the indicator by pushing the reset button.

4 On compressors with aftercooler, check that the automatic drain of the water separator is operative without air leakage.

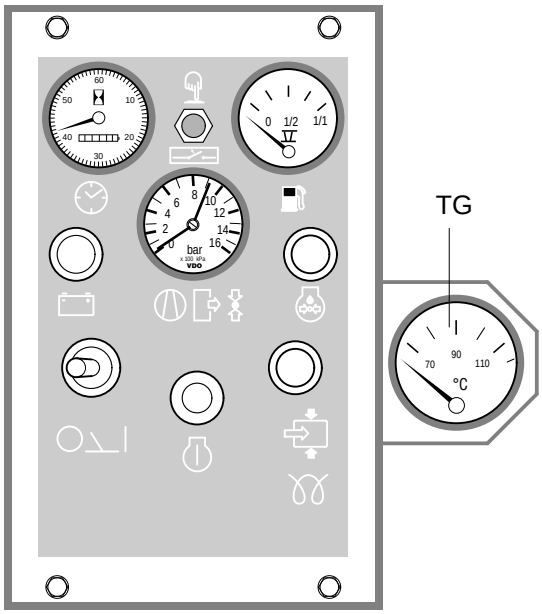


Fig. 3.7 Air outlet temperature gauge (TG)
(View with opened righthand door)

4. MAINTENANCE

4.1 USE OF SERVICE PAKS

Service Paks include all genuine parts needed for normal maintenance of both compressor and engine.

Service Paks minimise downtime and keep your maintenance budget low.

Order Service Paks at your local Atlas Copco dealer.

4.2 PREVENTIVE MAINTENANCE SCHEDULE FOR THE COMPRESSOR

The schedule contains a summary of the maintenance instructions. Read the respective section before taking maintenance measures.

When servicing, replace all disengaged packings, e.g. gaskets, O-rings, washers.

For engine maintenance refer to Engine Operation Manual.

The maintenance schedule has to be seen as a guideline for units operating in a duty environment typical to compressor applications. Maintenance schedule can be adapted depending on application environment and quality of maintenance.

MAINTENANCE SCHEDULE	Daily	Normal	Yearly	Remarks
		or every 500 hours	*or every 1000 hours*	

SERVICE PAK		2905 0599 02	2905 0599 03	
Engine oil level	Check			
Compressor oil level	Check			
Air filter dust trap	Empty			
Fuel filter water drain	Drain			
Generator main switch	Check			
Generator V-belt tension		Check/Adjust		
Air intake vacuum indicator	Check		Test	
Electrolyte level and terminals of battery		Check	Check	
Tyre pressure		Check	Check	
Leaks in air-, oil- or fuel system		Check	Check	
Oil cooler package		Clean	Clean	
Engine minimum and maximum speeds		Check	Check	
Torque of wheel bolts		Check	Check	
Brake system (if installed)		Check/Adjust	Check/Adjust	
Safety valve			Test	
Door Hinges		Grease	Grease	
Towing eye shaft or ball coupling and its shaft		Grease	Grease	
Shut-down switches			Check	
Pressure drop over separator element (2)		Measure	Replace	
Fan v-belt (3)		Adjust	Adjust	
Fueltank		Clean	Clean	
Compressor oil			Change	
Compressor oil filter			Replace	
Air filter element (1)		Check	Replace	
Engine oil (3) (4)		Change	Change	
Engine oil filter (3)		Replace	Replace	
Fuel filter (3)		Replace	Replace	
Engine inlet and outlet valves (3)			Adjust	first adjustment
Oil flow restrictor		Clean	Clean	
Aftercooler water separator (if installed)		Clean	Clean	
Ball joints and pivots (solenoid/speed regelation)		Grease	Grease	
Wheel bearings			Grease	
Operating of regulating valve, speed regulator, unloader			Check	
Inspection by Atlas Copco Service technician				⚠

(1) More frequently when operating in a dusty environment.
(2) Replace the element when the pressure drop exceeds 0.8 bar.
(3) Refer to the KHD Deutz Engine Operation manual.
(4) 500 hours only valid when using PAROIL SAE 15 W 40.

Keep the bolts of the housing, the lifting eye, the towbar and the axle securely tightened. Refer to 'Technical specifications' for the torque valves.

4.3 Lubrication oils

It is strongly recommended to use Atlas Copco branded lubrication oils for both compressor and engine.

Mineral compressor oil **PAROIL M**:
for use in normal conditions.

- 5 liter can : order number **1615 5947 00**
- 20 liter can : order number **1615 5948 00**
- 208 liter barrel : order number **1615 5949 00**

Mineral engine oil **PAROIL SAE 15 W 40**:
for use in normal conditions.

- 5 liter can : order number **1615 5953 00**
- 20 liter can : order number **1615 5954 00**
- 208 liter barrel : order number **1615 5955 00**

Synthetic compressor oil **PAROIL S**:
for use in ambient temp. below -10° C.

- 5 liter can : order number **1615 5950 00**
- 19 liter can : order number **1615 5951 00**
- 208 liter barrel : order number **1615 5952 00**

Never mix synthetic with mineral oil.

If you want to use another brand of oil, consult Atlas Copco for more information concerning the recommended oil and service intervals.

4.4 Oil level check

Never mix oils of different brands or types

Use only non-toxic oils where there is a risk of inhaling delivered air

4.4.1 Check engine oil level

Consult also the Engine Operation Manual for the oil specifications, viscosity recommendations and oil change intervals.

See schedule.

Check engine oil level according to the instructions in the Engine Operation Manual and top up with oil if necessary.

4.4.2 Check compressor oil level

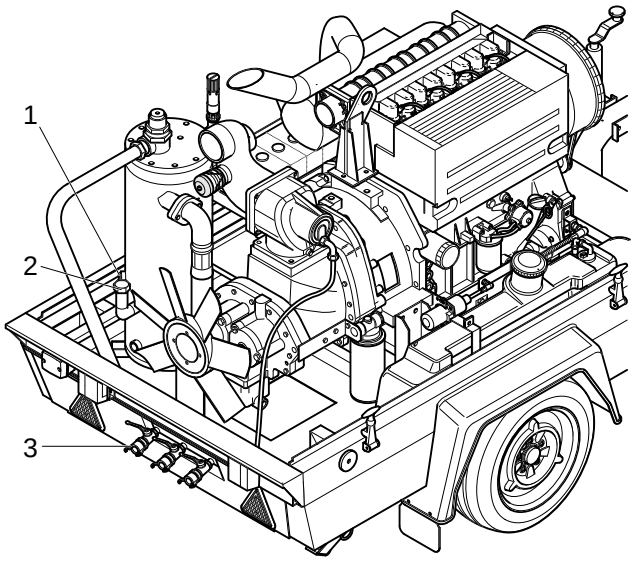


Fig. 4.1 Check compressor oil level

Stop the compressor. Let the oil settle for a few minutes.

With the unit standing level, check the level of the compressor oil.

The pointer of the oil level gauge (1) must register in the upper extremity of the green range. Add oil if necessary.

Before removing oil filler plug (2), ensure that the pressure is released by opening an air outlet valve (3).

After topping up with oil, reinstall and tighten the filler plug.

4.5 OIL AND OIL FILTER CHANGE

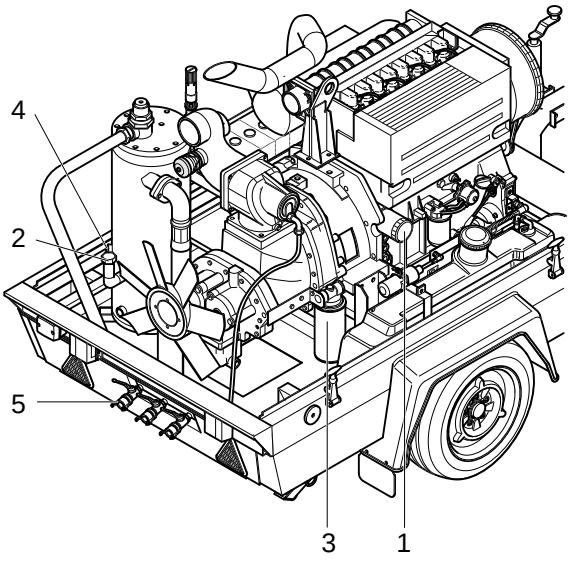


Fig. 4.2 Oil filters

4.5.1 ENGINE OIL AND OIL FILTER CHANGE

Consult also the Engine Operation Manual for oil and oil filter (1) change intervals.

4.5.2 COMPRESSOR OIL AND OIL FILTER CHANGE

The quality and the temperature of the oil determine the oil change interval.

The prescribed interval (See section 4.2) is based on an oil temperature of up to 100 °C and normal operating conditions.

When operating in high ambient temperatures, in very dusty or high humidity conditions, it is recommended to change the oil more frequently.

In this case, contact Atlas Copco.

1 Run the compressor until warm. Close the outlet valve(s) and stop the compressor. Wait until the pressure is released through the automatic blow-down valve. Unscrew the oil filler plug (2) one turn. This uncovers a vent hole, which permits any pressure in the system to escape.

2 Drain the oil by removing all drain plugs. Drain plugs are located at the oil tank , oil cooler, check valve and oil stop valve. The two last-mentioned plugs are accessible after removal of the service door underneath the compressor element. Catch the oil in a drain pan. Screw out the filler plug to speed up draining. Tighten the plugs after draining.

3 Remove the oil filter (3), e.g. by means of a special tool. Catch the oil in a drain pan.

4 Clean the filter seat on the manifold, taking care that no dirt drops into the system. Oil the gasket of the new filter element. Screw it into place until the gasket contacts its seat, then tighten one half turn only.

5 Fill the air receiver until the pointer of the oil level gauge (4) registers in the upper extremity of the green range. Take care that no dirt drops into the system. Reinstall and tighten the filler plug.

6 Run the unit at no load for a few minutes to circulate the oil and to evacuate the air trapped in the oil system.

7 Stop the compressor. Let the oil settle for a few minutes. Check that the pressure is released by opening an air outlet valve (5). Screw out filler plug (2) and add oil until the pointer of the oil level gauge (4) again registers in the upper extremity of the green range. Reinstall and tighten the filler plug.

Never add more oil. Overfilling results in oil consumption.

4.6 CLEANING COOLERS

Consult the Engine Operation Manual for engine cooler cleaning intervals and procedure.

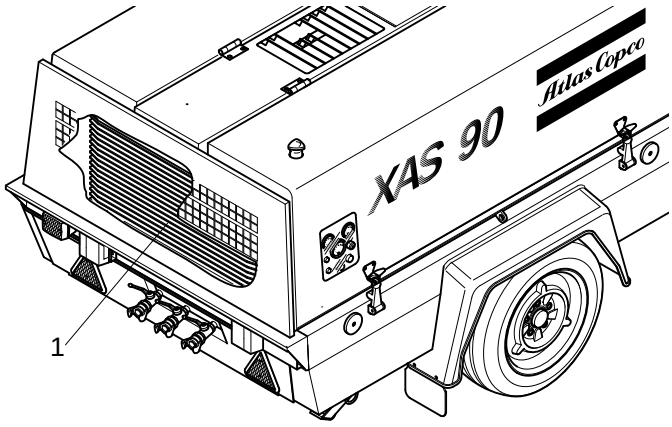


Fig. 4.3 Compressor oil cooler

Keep the compressor oil cooler (1) clean to maintain the cooling efficiency.

Remove any dirt from the cooler with a fibre brush. Never use a wire brush or metal objects.

Then clean by air jet in reverse direction of normal flow.

If the dirt is oily, wash the cooler with fuel or a cleansing agent.

Protect the electrical and controlling equipment, air filters etc. against penetration of moisture.

A spray gun should preferably be used to apply the solvent to the fins. Rinse the block by means of a water jet max. 80 bar at 5 cm distance after a soaking-in period. Steam cleaning may also be applied.

Never leave spilled liquids such as fuel, oil, water and cleansing agents in or around the compressor.

4.7 Battery care

Before handling batteries, read the relevant safety precautions and act accordingly.

An ASB (Service Bulletin) dealing elaborately with batteries and due care is available on request.

If the battery is still dry,it must be activated as described in point 4.7.1.

The battery must be in operation within 2 months from being activated; if not, it needs to be recharged first.

4.7.1 Activating a dry-charged battery

- Take out the battery.
- Battery and electrolyte must be at equal temperature above 10 °C.
- Remove cover and/or plug from each cell.
- Fill each cell with electrolyte until the level reaches 10 to 15 mm above the plates, or to the level marked on the battery.
- Rock the battery a few times so that possible air bubbles can escape; wait 10 minutes and check the level in each cell once more; if required, add electrolyte.
- Refit plugs and/or cover.
- Place the battery in the compressor.

4.7.2 Electrolyte

Read the safety instructions carefully

Electrolyte in batteries is a sulphuric acid solution in distilled water.

The solution must be made up before being introduced into the battery.

4.7.3 Recharging a battery

Before and after charging a battery, always check the electrolyte level in each cell; if required, top up with distilled water only. When charging batteries, each cell must be open, i.e. plugs and/or cover removed.

Use a commercial automatic battery charger according to its manufacturer's instructions.

Apply with preference the slow charging method and adjust the charge current according to the following rule of thumb:

battery capacity in Ah divided by 20 gives safe charging current in Amp.

4.7.4 Battery maintenance

- Keep the battery clean and dry
- Keep the electrolyte level at 10 to 15 mm above the plates or at the indicated level; top up with distilled water only.
- Keep the terminals and clamps tight, clean, and lightely covered with petroleum jelly.

4.8 Storage

Run the compressor regularly, e.g. twice a week, until warm.

Load and unload the compressor a few times to operate the unloading and regulating components. Close the air outlet valves after stopping.

If the compressor is going to be stored without running from time to time, protective measures must be taken as described in a separate Service Bulletin (ASB), which may be obtained on request.

4.9 Service kits

A service kit is a collection of parts to fit a specific repair or rebuilding task.

It guarantees that all necessary parts are replaced at the same time which improves the uptime of the unit.

The order numbers of the Service Kits are listed in the Atlas Copco Parts List (ASL).

Contact Atlas Copco.

4.10 Compressor element overhaul

When a compressor element is due for overhaul, it is recommended to have it done by Atlas Copco. This guarantees the use of genuine parts and correct tools with care and precision.

5. ADJUSTMENTS AND SERVICING PROCEDURES

5.1 ADJUSTMENT OF THE REGULATING VALVE

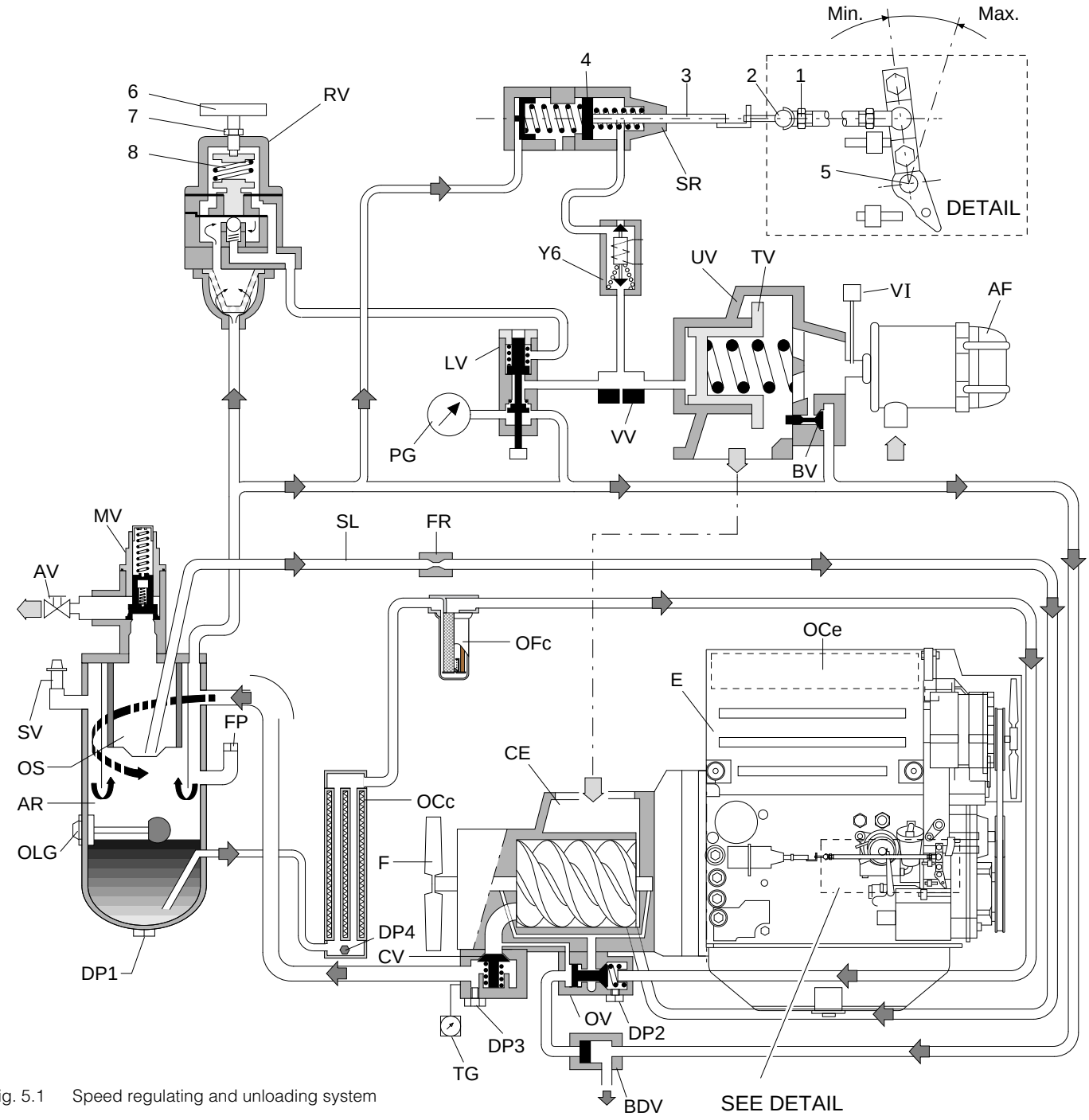


Fig. 5.1 Speed regulating and unloading system

AF	Air filter (for engine and compressor)	FR	Flow restrictor, oil scavenging line	TV	Throttle valve
AR	Air receiver	LV	Loading valve	UV	Unloader valve
AV	Air outlet valves	MV	Minimum pressure valve	VI	Vacuum indicator
BDV	Blow-down valve	OCc	Oil cooler compressor	VV	Venting valve
BV	Bleeder valve	OCe	Oil cooler engine	Y6	Solenoid valve for maximum speed of engine
CE	Compressor element	OFc	Oil filter, compressor	1.	Check nut, ball joint
CV	Check valve	OLG	Oil level gauge	2.	Ball-and-socket joint
DP1	Drain plug, oil tank	OS	Oil separator element	3.	Piston rod
DP2	Drain plug, oil stop valve	OV	Oil stop valve	4.	Piston
DP3	Drain plug, check valve	PG	Working pressure gauge	5.	Engine speed control lever
DP4	Drain plug, oil cooler	RV	Regulating valve	6.	Adjusting wheel, working pressure
E	Engine	SL	Scavenge line	7.	Check-nut, adjusting wheel
F	Fan	SR	Speed regulator	8.	Spring
FP	Filler plug, compressor oil	SV	Safety valve		
		TG	Air/oil temperature gauge		

– See Fig. 5.1 –

The working pressure is determined by the tension of the spring (8) in the regulating valve (RV). This tension is increased to raise the working pressure and decreased to lower it by turning the adjusting wheel (6) clockwise and anti-clockwise repectively.

To adjust the normal working pressure, proceed as follows:

1. Start and warm up the engine; load the compressor but do not open the outlet valves. Check the unloading pressure which should be approx. 1 - 1.5 bar above the normal working pressure. If the receiver pressure is less, loosen check nut (7) and turn adjusting wheel (6) a fraction of a turn at a time, clockwise until the right unloading pressure is obtained.
2. Open an outlet valve just enough to maintain the normal working pressure in the air receiver. Check that the engine speed control lever (5) is against the maximum speed stop screw. If not, slowly turn the adjusting wheel clockwise until the lever buts against the screw. The piston rod (3) of the speed regulator is in its full-out position and the engine runs at its pre-set maximum load speed.
3. While maintaining the normal working pressure in the air receiver, turn the adjusting wheel, a fraction of a turn at a time, anti-clockwise until the engine just starts decelerating. Next, turn the adjusting wheel 1/4 of a turn clockwise. Repeat the operation, if necessary, and lock the wheel with its check nut (7).
4. Close the outlet valve(s) to decelerate the engine to its unloading speed. The piston rod of the speed regulator should then be in its full-in position and piston (4) rest against its stop in the regulator.
5. Check the unloading speed. Adjust, if necessary, the length of the speed regulator operating rod by means of ball-and-socket joint (2). Tighten the check nut (1) of the ball joint after adjustment.

1. Never operate the engine below its unloading speed.

2. Never exceed the maximum (unloading) pressure.

5.2 AIR FILTER ENGINE/COMPRESSOR

5.2.1 MAIN PARTS

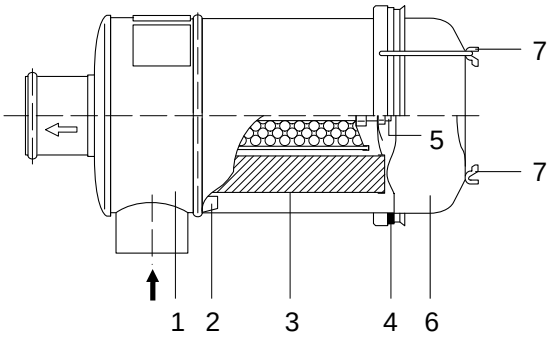


Fig. 5.2 Air filter

1	Filter housing
2	Cyclone blades
3	Filter element
4	Baffle
5	Retaining nut, filter element
6	Dust trap
7	Snap clips

5.2.2 RECOMMENDATIONS

The Atlas Copco air filters are specially designed for the application. The use of non-genuine air filters may lead to severe damage of engine and /or compressor element.

Never run the compressor without air filter element.

New elements must also be inspected for tears or punctures before installation.

Discard the filter element (3) when damaged.

Never use oil in the dust trap.

The vacuum indicator can be reset by pushing the reset button in the extremity of the body (Fig. 5.3,9).

5.2.3 CLEANING THE DUST TRAP

1. Release the two snap clips (7) that secure the dust trap to the filter body and remove the trap.
2. Pry off the plastic baffle (4) from the trap and empty the latter.
3. Clean the trap and baffle and reassemble them, taking care that the slot in the baffle fits over the stud of the trap.
4. Reinstall the trap on the filter body, with the side marked "TOP" upwards, and secure it with the clips.

5.2.4 REPLACING THE AIR FILTER ELEMENT

1. Release the snap clips (7) and remove the dust trap (6). Clean the trap.
2. Remove retaining nut (5) and withdraw the element (3) from housing (1).

   If the element is to be serviced for immediate re-use, reinstall the dust trap to protect the air intake system while cleaning the element.
3. Replace the filter and reassemble in reverse order of dismantling.
4. Inspect and tighten all air intake connections.
5. Reset the vacuum indicator (Fig. 5.3).

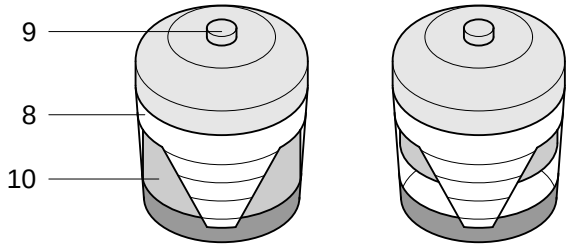


Fig. 5.3 Vacuum indicator

8 Air filter contamination indicator
9 Reset button
10 Yellow indicator

5.3 AIR RECEIVER

The air receiver is tested according to official standards. Regularly have inspections carried out in conformity with local regulations.

5.4 SAFETY VALVE

All adjustments or repairs are to be done by an authorized representative of the valve supplier.

Following checks must be carried out:

– a check of the opening of the lifting gear, twice a year. This can be done by screwing the cap of the valve anti-clockwise.
– a check of the set pressure once a year according to the local regulations. This check cannot be done on the machine and must be carried out on a proper test bench.

5.5 FUEL SYSTEM

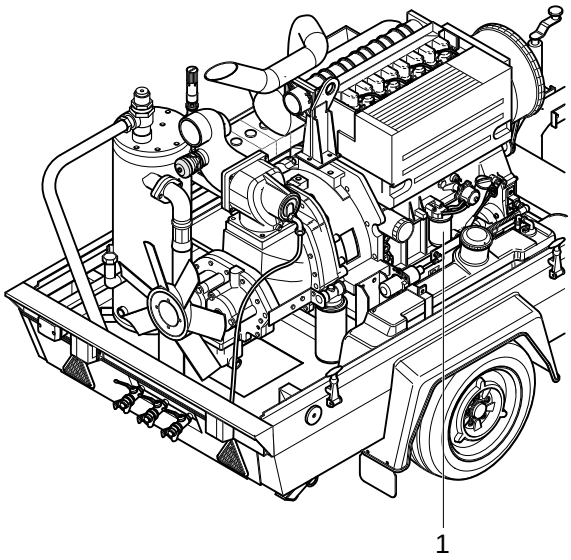


Fig. 5.4 Fuel filter

Replacing the filter element

1. Unscrew the filter element (1) from the adapter head.
2. Clean the adapter head sealing surface. Lightly oil the gasket of the new element and screw the latter onto the header until the gasket is properly seated, then tighten with both hands.
3. Check for fuel leaks once the engine has been restarted.

5.6 Brake (= option) adjustment

Before jacking up the compressor, connect it to a towing vehicle or attach a weight of minimum 50 kg to the towbar.

Before removing a brake cable, a strap must be passed around the brake lever, in its downward position, and the towbar.

This strap may only be removed after proper reinstallation of the brake cables.

5.6.1 Brake shoe adjustment

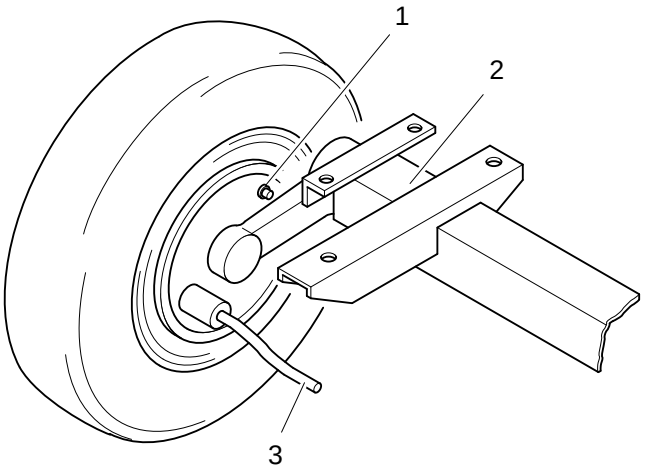


Fig. 5.5 Wheel assembly

1 Adjusting nut, brake shoe
2 Axle
3 Brake cable

Brake shoe adjustment re-establishes the brake lining-to-drum clearance and compensates for lining wear.

Adjustment can only be done with the towing eye in its pulled-out position.

1. Jack up the axle until a wheel clears the floor. Support the compressor on wooden blocks.
2. Disconnect the brake cables (Fig. 5.6, 1).
3. While turning the wheel in the sense of forward towing, turn brake adjusting nut (Fig. 5.5, 1) clockwise until the brake shoes block the drum. Then loosen the nut, with the wheel again turning in the same direction, until the drum rotates freely or with a light friction. Repeat for the other wheel.
4. Adjust the brake cables as described below.

5.6.2 Brake cable adjustment

1. Reconnect the brake cables (Fig. 5.6).
2. With the towing eye pulled out and the hand brake lever (Fig. 5.7) in the downward position, turn adjusting nut and brake cable nuts (Fig. 5.6, 4) clockwise until there is no slack in the brake mechanism.
   The equalizer (Fig. 5.6, 6) must remain perpendicular to main brake cable (Fig. 5.6, 5).
3. Apply the hand brake lever several times and repeat the adjustment. Tighten the nuts with their lock nuts (Fig. 5.6, 2). Remove the jack and the blocks.
4. Road-test the compressor and brake several times. Then repeat steps 1 and 3 of Section 5.6.1.

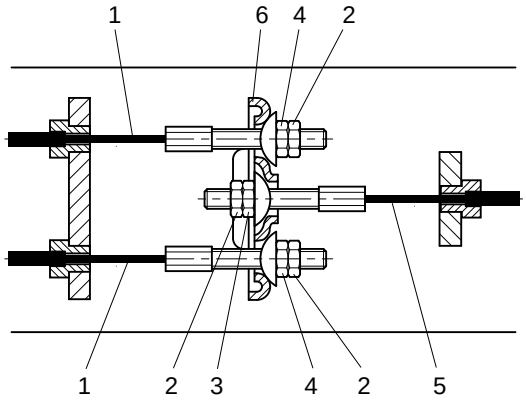


Fig. 5.6 Brake cable arrangement

1 Brake cable
2 Lock nut
3 Adjusting nut
4 Brake cable nut
5 Main brake cable
6 Equalizer

5.6.3 TEST PROCEDURE OF BRAKE ADJUSTMENT

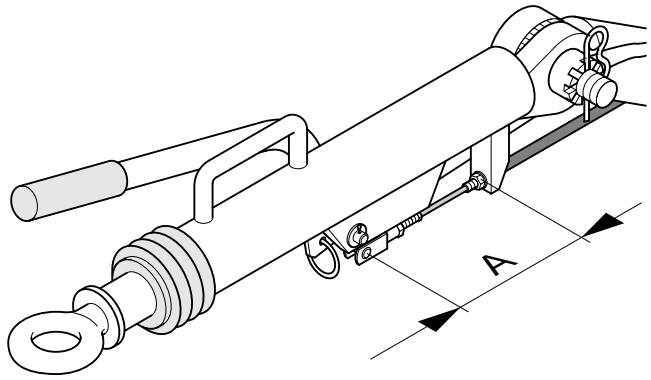


Fig. 5.7 Detail of brake system

The final check must be carried out as follows:

1. Check if the towing eye rod of the overrun brake mechanism is in the outmost position.
2. Apply the handbrake lever.
3. Push the compressor a few inches backwards so that the brake lever is automatically pulled further up.
4. Measure dimension ”A” (Fig. 5.7). The dimension ”A” should be 197 mm (+/- 3 mm); if not, the brake mechanism should be readjusted.

5.7 V-BELT ADJUSTMENT

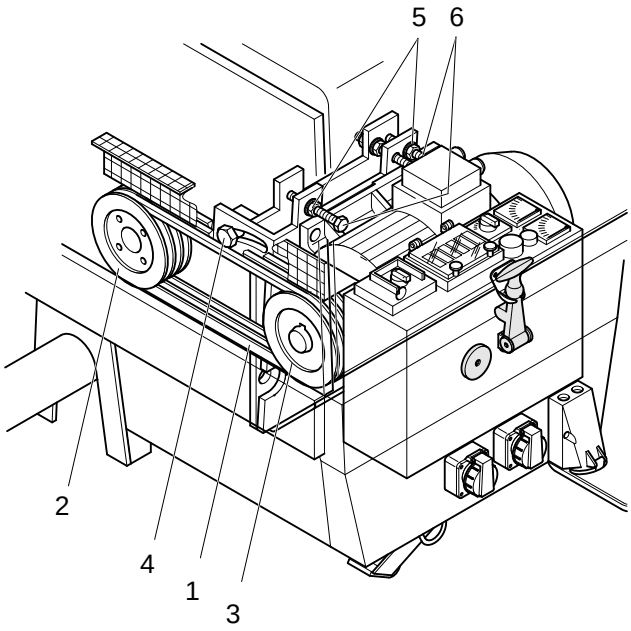


Fig. 5.8 V-belt drive generator

Regularly check and, if necessary, adjust the tension of the generator V-belts (1). Use a straight edge and check V-belt slack midway between the two pulleys (2 and 3) by applying finger pressure. Remove any belt slack in excess of 8 mm.

Loosen bolt (4). Loosen locknuts (5). Turn adjusting bolts (6) clockwise to increase V-belt tension or counterclockwise to decrease V-belt tension. When the V-belt tension is within limit mentioned above, retighten lock nuts (5) and bolt (4).

6. PROBLEM SOLVING

6.1 PROBLEM SOLVING CHART

The chart helps to solve mechanical and electrical problems.

It is assumed that the engine is in good condition and that there is adequate fuel flow to the filter and injection equipment.

An electrical fault must be traced by an electrician.

Make sure that the wires are not damaged and that they are clamped tight to their terminals.

6.2 ALTERNATOR PRECAUTIONS

1. Never reverse the polarity of the battery or the alternator.
2. Never disconnect any alternator or battery connections while the engine is running.
3. When recharging the battery, disconnect it from the alternator. Before using booster cables to start the engine, be sure of the polarity and connect the batteries correctly.
4. Never operate the engine without the main or voltage sensing cables connected in the circuit.

Problem	Possible faults	Corrective actions
1. Lamps (H1, H6) do not light up when switching (S1) to "I".	a. Discharged or defective battery.	a. Check electrolyte level and charge battery. If no cells are shorted and battery is discharged, trace cause and correct.
	b. Loose battery cable(s) or oxidised terminals.	b. Check and correct as necessary.
	c. Loose connection or damaged wiring.	c. Check wiring and connections, correct as necessary.
	d. Switch (S1) defective.	d. With (S1) switched in "I", check voltage between earth and respectively each of the terminals of (S1), Voltage must register at each of the terminals; if not, replace (S1).
	e. Circuit breaker (F1) defective.	e. Replace circuit breaker.
2. Alarm lamp (H1) does not light up when switching (S1) to "I"; lamp (H6) lights up.	a. Lamp (H1) blown.	a. Replace lamp.
	b. Alternator/regulator defective.	b. Disconnect the wire from alternator terminal D+ and connect it to terminal D-. If (H1) lights up, replace the alternator; if not, test (S1); see remedy 1d.
3. Lamp (H6) does not light up when switching (S1) to "I", lamp (H1) lights up.	a. Lamp (H6) blown.	a. Replace lamp.
	b. See fault 1d.	b. See remedy 1d.
4. Starter motor does not crank engine after switching (S1) to "I" and depressing (S2).	a. Low battery output.	a. See remedy 1a.
	b. Start switch (S2) defective.	b. With (S1) in "I" and (S2) depressed, check voltage between earth and respectively each of the terminals of (S2). Voltage must register at each of the terminals; if not, replace (S2).
	c. Alternator output relay (K6) defective.	c. Replace (K6).
	d. Start solenoid (K0) or starter motor defective.	d. Check start solenoid (K0). Have starter motor repaired.

Problem	Possible faults	Corrective actions
5. Starter motor cranks engine when depressing (S2), but engine does not fire.	a. Switch (S2) defective.	a. See remedy 4b.
	b. Fuel solenoid (Y1) defective.	b. Check solenoid and its valve; correct or replace as necessary.
	c. Low battery output.	c. See remedy 1a.
6. Engine fires, but lamp (H1) remains alight; compressor stops when releasing (S2).	a. Alternator drive belt broken or slipping.	a. Check and correct as necessary.
	b. Alternator/regulator defective.	b. Have assembly repaired.
7. Engine is running, but shuts down immediately after (S2) has been released.	a. Override push button released too soon.	a. Release button after engine oil pressure has built up to above the minimum allowed value.
	b. Insufficient engine oil pressure.	b. Stop at once, consult Engine Operation Manual.
	c. Fuel tank (FT) contains insufficient fuel.	c. Fill fuel tank.
	d. Engine oil pressure shut-down switch (S5) or compressor temperature shut-down switch (S7) defective.	d. Remove and test switches. Replace if out of order.
8. Lamp (H6) remains alight for over 10 seconds after starting.	a. Fuel tank (FT) contains insufficient fuel.	a. Fill fuel tank.
	b. Insufficient engine oil pressure.	b. Stop at once, consult Engine Operation Manual.
	c. Engine oil pressure switch (S5) or compressor temperature switch (S7) defective.	c. Stop at once, test switches, replace if necessary.
	d. Fuel level sensor (B6) defective, relay (K8) out of order.	d. Stop at once, test switches, replace if necessary. If in order, replace relay (K8).
9. Hourmeter (P3) does not count running time.	a. Hour meter (P3) defective.	a. Replace.
10. Compressor does not unload and engine keeps running at maximum speed when closing the air outlet valves (AR); safety valve (SV) blows.	a. Air leaks in regulating system.	a. Check and repair.
	b. Regulating valve (RV) incorrectly set or defective.	b. Adjust or repair regulating valve; see section 5.1.
	c. Unloader valve (UV) or its actuating piston stuck.	c. Repair unloader valve assembly.
11. Compressor capacity or pressure below normal.	a. Air consumption exceeds capacity of compressor.	a. Check equipment connected.
	b. Choked air filter element (AF).	b. Remove and inspect element. Clean or replace if necessary.
	c. Regulating valve (RV) incorrectly set.	c. See section 5.1.
	d. Engine not up to full speed.	d. When engine control lever is against max. speed stop, check speed and in case of power loss, see Engine Operation Manual. If lever is not against stop, remove and inspect speed regulator and adjust length of operating rod.

Problem	Possible faults	Corrective actions
11. Compressor capacity or pressure below normal. (continued)	e. Loading valve (LV) leakage past O-ring.	e. Remove and inspect valve. Replace damaged or worn O-rings.
	f. Oil separator element (OS) clogged.	f. Have element removed and inspected by an Atlas Copco Service representative.
	g. Air intake throttle valve (TV) remains partially closed.	g. Disconnect hose between throttle valve housing and loading valve from the latter and connect hose to independent compressed air line. Repeatedly admit air and listen for sound of valve. If sound is not evident, remove unloader valve assembly, dismantle and inspect. Replace parts where necessary.
	h. Safety valve (SV) leaking.	h. Remove and inspect. Replace if not airtight after reinstallation.
	i. Bleeder valve (BV) leaking.	i. Remove and inspect. Replace, if necessary.
	j. Compressor element (CE) out of order.	j. Consult an Atlas Copco Service representative.
12. Working pressure rises during operation and causes safety valve (SV) to blow.	a. Regulating valve (RV) incorrectly set or defective.	a. Adjust working pressure, see section 5.1. Dismantle and inspect parts if valve does not respond.
	b. Air leaks in regulating system.	b. Check hoses and their fittings. Stop leaks; replace leaking hoses.
	c. Speed regulator (SR) malfunctioning.	c. Remove, dismantle and inspect piston ring and its O-ring. Replace worn or defective parts.
	d. Air intake throttle valve (TV) does not close.	d. See 11g.
	e. Bleeder valve (BV) malfunctioning.	e. Remove and inspect valve.
13. Excessive compressor oil consumption. Oil mist being discharged from air outlet valve (s).	a. Restrictor in oil scavenging (SL) line clogged.	a. Dismount, clean and refit restrictor.
	b. Oil separator element (OS) defective.	b. Replace element.
	c. Oil level too high.	c. Check for overfilling. Release pressure and drain oil to correct level.
14. Air and oil expelled from air filter after stopping.	a. If mainly air: check valve (CV) defective.	a. Repair valve and replace air filter element.
	b. If mainly oil: oil stop valve (OV) defective.	b. Repair valve and replace air filter element.

Problem	Possible faults	Corrective actions
15. Compressor overheating.	a. Insufficient compressor cooling. b. Oil cooler (OCc) clogged externally. c. Oil system clogged internally. d. Oil level too low. e. Cooling fan (F) defective. f. Oil separator element (OS) clogged. g. Oil filter (OFc) clogged. h. Oil stop valve (OV) stuck in closed position.	a. Relocate compressor. b. Clean cooler; see section 4.6. c. Consult Atlas Copco. d. See section 4.4. e. Replace fan. f. Replace oil separator. g. Replace oil filter. h. Remove and inspect valve.
16. Compressor loaded automatically to full capacity after starting.	a. Loading valve (LV) stuck in loaded position. b. Air intake throttle valve (TV) stuck in open position. c. Air leaks in regulating system.	a. Remove and dismantle. Correct if necessary. b. See remedy 11g. c. See remedy 12b.
17. Engine does not speed up immediately after compressor load button has been pressed and compressor does not deliver air.	a. Regulating valve (RV) out of order. b. Air intake throttle valve (TV) stuck in closed position.	a. Remove and dismantle. Correct if necessary. b. See remedy 11g.
18. Air consumption varies at pressures above pre-set working pressure, but engine does not accelerate nor decelerate.	a. Speed regulator (SR) defective.	a. Remove, dismantle and inspect parts.
19. After working for some time, the unit stops through a shut-down switch and alarm lamp (H6) ligths up.	a. Fuel tank (FT) contains insufficient fuel. b. Engine oil pressure too low. c. Compressor overheating.	a. Fill fuel tank. Air-vent the fuel system if fuel level sensor (B6) is not installed. b. See Engine Operation Manual. c. See item 15.

7. AVAILABLE OPTIONS

The XA(S)90 DdG can be delivered with following options:

Type:	EURO
	ASME
Towbar:	Adjustable with brakes
	Adjustable without brakes
	Fixed with brakes
	Fixed without brakes
	Support (without undercarriage)
Towing eyes:	Atlas Copco
	DIN
	Ball
	NATO
Towbar support:	Leg
	Jockey wheel
Road signalisation:	Full
	Semi
Air quality equipment:	Aftercooler + water separator
	Aftercooler + water separator + PD/QD fine filters
	Aftercooler + water separator + PD/QD + reheater
	Lubricator
Generator:	230 V/ 50 Hz 3 kVA
	120 V/ 60 Hz 3 kVA
Safety:	Wheel chocks
	Silencing foam
	Spark arrestor
Cold start:	-20°C kit
Customer colour:	single
	double
	triple

8. TECHNICAL SPECIFICATIONS

8.1 TORQUE VALUES

8.1.1 FOR GENERAL APPLICATIONS

The following tables list the recommended torques applied for general applications at assembly of the compressor.

For hexagon screws and nuts with strength grade 8.8

Thread size	M6	M8	M10	M12	M14	M16
Nm	9	23	46	80	125	205

For hexagon screws and nuts with strength grade 12.9

Thread size	M6	M8	M10	M12	M14	M16
Nm	15	39	78	135	210	345

8.1.2 FOR IMPORTANT ASSEMBLIES

Assemblies	Unit	Torque values
Wheel bolts	Nm	80 – 90
Axle/frame screws (M16)	Nm	185 – 225
Axle/frame screws (M12)	Nm	75 – 85
Bolts, towbar/axle (M12)	Nm	75 – 85
Screws, towbar/frame (M12)	Nm	75 – 85
Screws, lifting eye/flywheel housing	Nm	110 – 140
Screws, coupling half/coupling	Nm	80 – 90
Screws, towing eye/towbar (M12)	Nm	75 – 85
Nuts, engine outlet collector/silencer	Nm	50 – 55
Nuts, brake cable/wheel plate	Nm	15 – 25

Note:
Secure the tank cap and drain cock of the fuel tank handtight.

8.2 SETTINGS OF SHUT-DOWN SWITCHES AND SAFETY VALVES

Designation	Unit	
Engine oil pressure	bar(e)	2.3 - 1.8
Compressor temperature	°C	116 – 120
Safety valve opening pressure		
EC type	bar(e)	9.5

8.3 COMPRESSOR/ENGINE SPECIFICATIONS

Compressor type		XA(S)90 DdG
Reference conditions		
1. Absolute inlet pressure	bar	1
2. Relative air humidity	%	0
3. Air inlet temperature	°C	20
4. Normal effective working pressure	bar	7 (6)
The inlet conditions are specified at the air inlet grating outside the canopy		
Performance data		
1. Engine shaft speed, normal and maximum	r/min	2600-2700
2. Engine shaft speed, compressor unloaded	r/min	1400
3. Free air delivery	l/s	87
4. Compressed air temperature at outlet valves	°C	75
5. Noise level (XAS90 DdG)		
– Sound pressure level (LP), measured according to ISO 2151 with a tolerance of +/- 3 dB(A) under free field conditions at 7 m distance	dB(A)	73
– Sound power level (LW) complie with 84/533/EEC limits	dB(A)	100
Design data		
Compressor		
1. Number of compression stages		1
Engine		
1. Make		KHD
2. Type		F4L1011F
3. Coolant		OIL/AIR
4. Number of cylinders		4
5. Output according to DIN ISO 3046 IFN at normal shaft speed	kW	39.5
Generator		
1. Output	kVA	9/5.5
2. Cos fi		1
3. Voltage	V	400/230
4. Current	A	13/24
5. Frequency	Hz	50
6. Insulation		IP 54
7. Interference class		N
8. Insulation class		F
9. Weight	kg	61

Unit

1.	Capacity of compressor oil system	l	12
2.	Nett capacity of air receiver	l	29
3.	Capacity of fuel tank	l	85

Unit dimensions
(with standard towbar)

Length	mm	3740
Width	mm	1520
Height	mm	1315
Weight (dry)	kg	1130

Outlet valve specifications

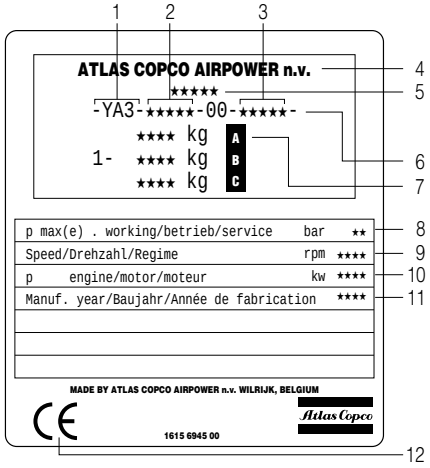
Number	diameter
3	3/4"

8.4 Conversion list of SI units into British units

1 bar	=	14.504 psi
1 g	=	0.035 oz
1 kg	=	2.205 lb
1 km/h	=	0.621 mile/h
1 kW	=	1.341 hp (UK and US)
1 l	=	0.264 US gal
1 l	=	0.220 Imp gal (UK)
1 l	=	0.035 cu.ft
1 m	=	3.281 ft
1 mm	=	0.039 in
1 m^3/min	=	35.315 cfm
1 mbar	=	0.401 in wc
1 N	=	0.225 lbf
1 Nm	=	0.738 lbf.ft
t °F	=	32 + (1.8 x t °C)
t °C	=	(t °F - 32)/1.8

– A temperature difference of 1 °C = a temperature difference of 1.8 °F

9. DATAPLATE



1. Company code
2. Product code
3. Unit serial number
4. Name of manufacturer
5. EEC or national type approval number
6. Vehicle identification number
7. A Maximum permitted laden weight of the vehicle
   B Maximum permitted road weight of the vehicle
   C Maximum permitted laden weight of the towing eye
8. Working pressure
9. Speed
10. Engine power
11. Manufacturing year
12. EC mark in accordance with Machine Directive 89/392 EEC

0006028A (1648x2323x2 tiff)

Registration code

Atlas Copco

Collection: ASL 23
Tab: 69
Sequence: 0150
1990-11

Parts list for portable compressors
Onderdelenlijst voor transportabele kompressoren
Reservdelsförteckning för transportabla kompressorer
Teilliste für fahrbare Kompressoren
Liste de pièces pour compresseurs mobiles
Lista de las partes para compresores transportables
Listino parti di ricambio per compressori trasportabile

XA(S)90 DdA
XA(S)125,-175Dd, XAH(S)125 Dd
XA125 DdA, XA175 DdA

From following serial numbers onwards:
Geldig vanaf volgende serienummers:
Fr.o.m. tillverkningsnummer:
Gültig ab Seriennummer:
Valable à partir des numéros de série suivants:
A partir de los siguientes números de serie:
Dai seguenti numeri di serie in avanti:

XA(S)90 DdA	ARP-975 551
XA(S)125, XA125 DdA	ARP-914 934
XA(S)175, XA175 DdA	ARP-922 538
XAH(S)125	ARP-915 025

ATLAS COPCO AIRPOWER n.v. - B-2610 WILRIJK - BELGIUM
Printed Matter No. 2930 1059 00

Page **Contents**
Blz. **Inhoud**
Sida **Innehåll**
Seite **Inhaltsverzeichnis**
Pag. **Table des matières**
Pág. **Indice**
Pag. **Indice**

25 Speed regulator
Snelheidsregelaar
Varvtalsregulator
Drehzahlregler
Régulateur de vitesse
Regulador de velocidad
Regolatore di velocità

26 Loading valve
Belastklep
Pålastningsventil
Ladeventil
Soupape de charge
Válvula de carga
Valvola di messa a carico

27 Control panel
Bedieningsbord
Manöverpanel
Armaturenbrett
Panneau de commande
Panel de control
Pannello di controllo

29 Electrical equipment
Elektrische apparatuur
Elutrustning
Elektrische Ausrüstung
Equipement électrique
Equipo eléctrico
Apparecchiatura elettrica

32 Bodywork
Karrosserie
Karosseri
Karosserie
Capotage
Carrocería
Cappottatura

37 Frame and mountings
Frame en opbouwonderdelen
Ram och fästen
Rahmen und Montagekomponenten
Châssis et superstructure
Bastidor y piezas de montaje
Telaio e supporti

39 Non-adjustable towbar - with brakes
Niet regelbare trekstang - met remmen
Ej justerbar dragstång - med bromsar
Nicht verstellbare Deichsel - mit Bremsen
Timon non réglable - avec freins
Barra de tracción no ajustable - con frenos
Barra di traino non regolabile - con freni

41 Adjustable towbar - with brakes
Regelbare trekstang - met remmen
Justerbar dragstång - med bromsar
Verstellbare Deichsel - mit Bremsen
Timon réglable - avec freins
Barra de tracción ajustable - con frenos
Barra di traino regolabile - con freni

42 Engine, accessories and exhaust
Motor, toebehoren en uitlaat
Motor, tillbehör och avgasljuddämpare
Motor, Zubehör und Auspuff
Moteur, accessoires et échappement
Motor, accesorios y escape
Motore a scoppio, accessori e scarico

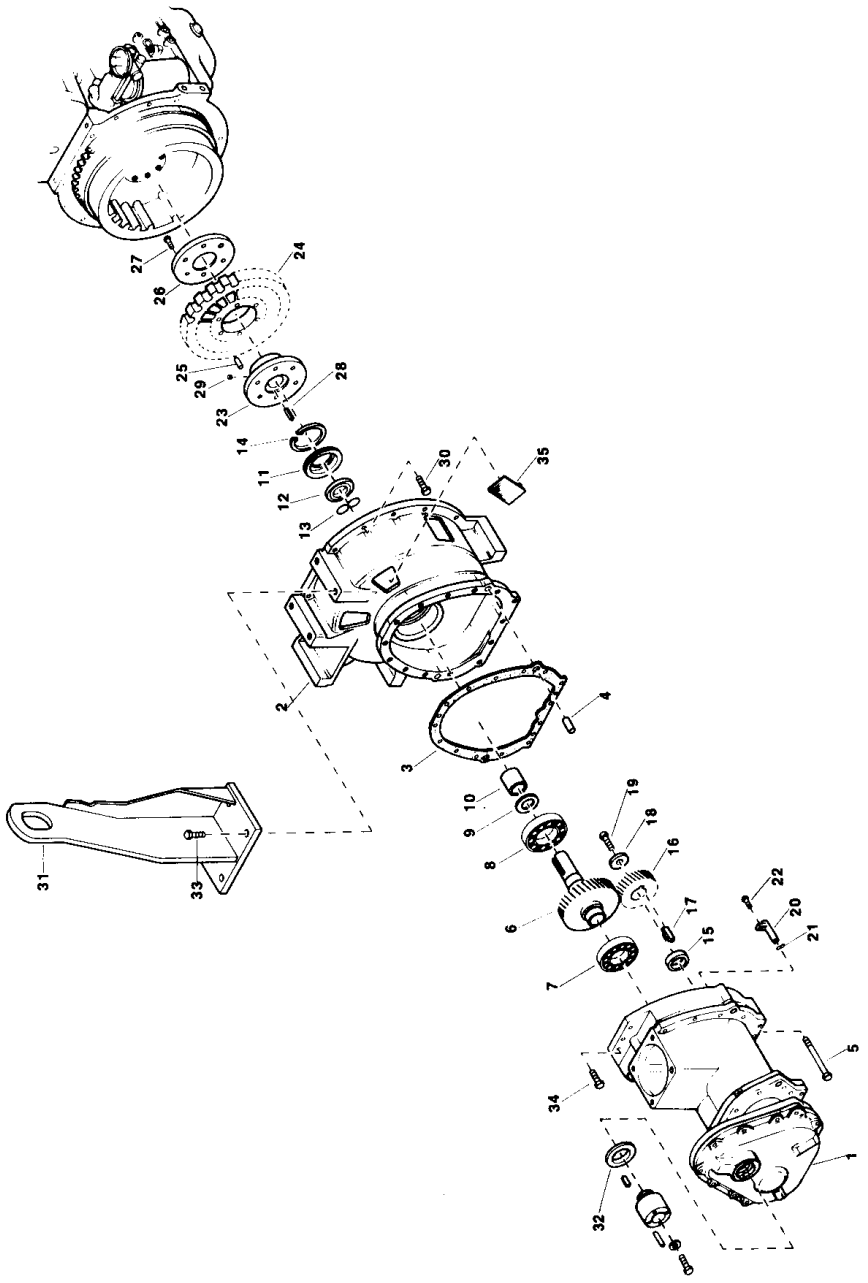
45 Engine, accessories and exhaust XA175 DdA
Motor, toebehoren en uitlaat XA175 DdA
Motor, tillbehör och avgasljuddämpare XA175 DdA
Motor, Zubehör und Auspuff XA175 DdA
Moteur, accessoires et échappement XA175 DdA
Motor, accesorios y escape XA175 DdA
Motore a scoppio, accessori e scarico XA175 DdA

46 Axle
As
Axel
Achse
Essieu
Eje
Assale

47 Hose reels (optional)
Haspels voor slangen (als optie)
Slanghasplar (extra utrustning)
Schlauchhaspel (extra Ausstattung)
Dévidoir pour flexibles (option)
Devanadera para manguera (como opción)
Avvolgitubi (su richiesta)

48 Contents "Service kits"
Inhoud "Service kits"
Innehåll "Service kits"
Inhalt "Service kits"
Table des matières "Service kits"
Indice "Service kits"
Indice "Kit per la manutenzione"

48 "Service Pak" Maintenance kits
"Service Pak" Onderhoudskits
"Service Pak" Underhållsutrustningar
"Service Pak" Wartungssätze
"Service Pak" Kit d'entretien
Equipo de mantenimiento "Service Pak"
"Service Pak" Kit per la manutenzione


27
26
24
25
29
28
23
14
11
12
13
30
35
2
3
4
10
9
8
19
18
16
17
15
22
20
21
6
7
5
34
1
32
31
33

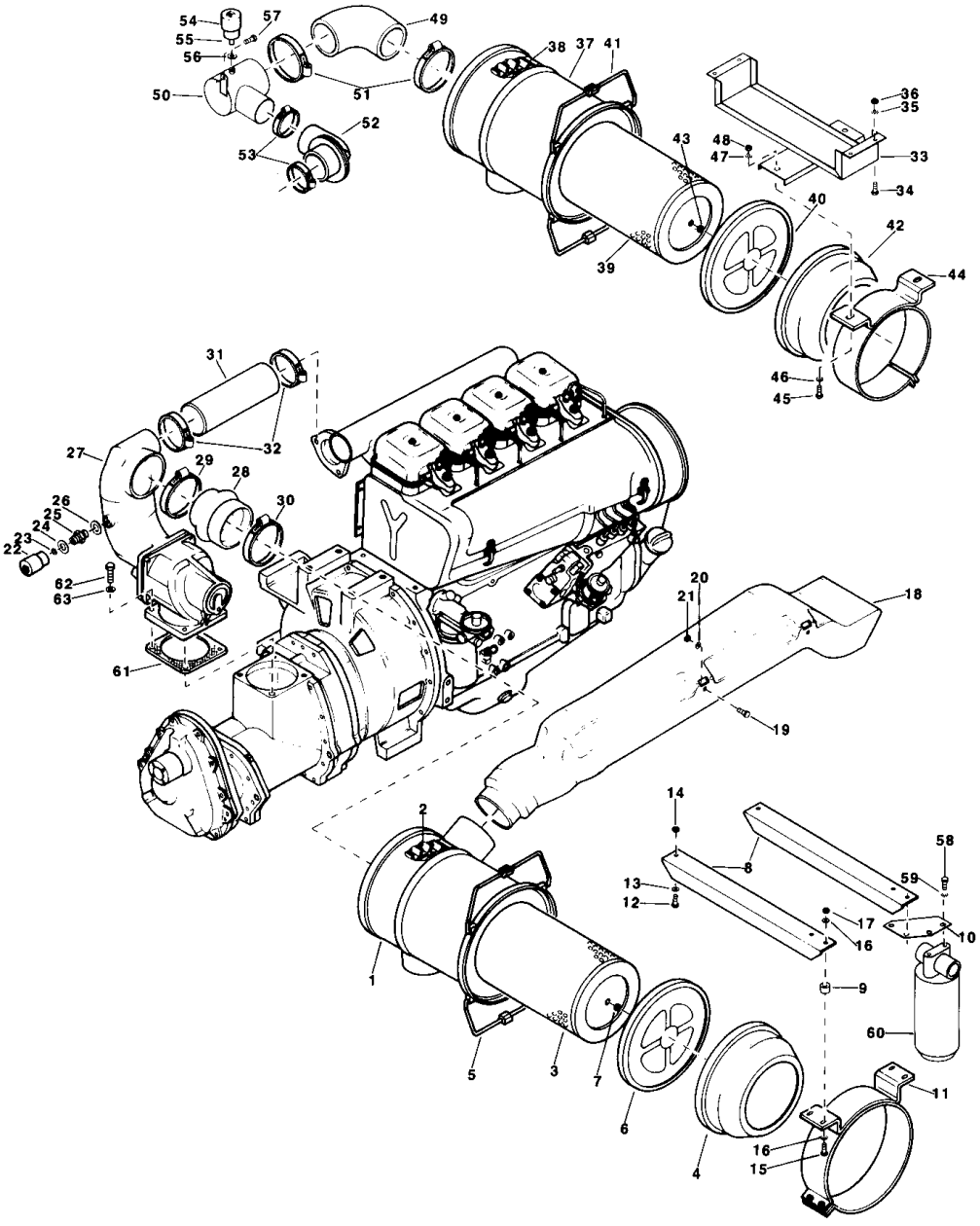
Compressor element and drive gear
Kompressorelement en aandrijving
Kompressorelement och drivning
Kompressorelement und Antrieb
Elément compresseur et entraînement
Elemento compresor y accionamiento
Elemento compressore e ingranaggi di azionamento

Ref.	A	B	C	D	Designation
1	1613 2189 80		1)	1	Compressor element
2	1616 4443 00			1	Gear casing
3	1202 7015 00		1	1	Gasket
4	0101 1626 00			2	Pin
5	0147 1377 03			12	Bolt
6				1	Drive shaft
	1202 7043 00				- XA(S)90DdA
	1615 4310 00				- XA(S)125Dd
	1202 5440 00				- XAH(S)125Dd
	1615 4355 00				- XA125DdA, XA(S)125Dd-South Afrika
	1616 4444 00				- XA(S)175Dd, XA175DdA
	1616 4760 00				- XA(S)175Dd-South Afrika
7	0502 1090 21		1	1	Bearing
8	0504 2510 00		1	1	Bearing
9	1613 2199 00			1	Washer
10	1613 2200 00			1	Bush
11	1613 2201 00			1	Retainer
12	1619 3857 00		1,2	1	Seal ring
13	0663 7141 00		1,2	1	O-ring
14	0335 2169 00			1	Circlip
15	1202 8206 00			1	Bush
16				1	Gearwheel
	1202 8149 00				- XA(S)90DdA
	1202 8153 00				- XA(S)125Dd
	1202 8154 00				- XAH(S)125Dd
	1202 8152 00				- XA125DdA, XA(S)125Dd-South Afrika
	1202 8156 00				- XA(S)175Dd, XA175DdA
	1202 8155 00				- XA(S)175Dd-South Afrika
17	0337 6062 00			1	Key
18	1613 2197 00			1	Washer
19	0147 1409 03		1	1	Bolt
20	1613 2203 00			1	Oil nozzle
21	0663 3117 00		1	1	O-ring
22	0147 1244 03			1	Bolt
23	1616 4447 00			1	Coupling half
24	1619 3803 00			1	Coupling element
25	1619 5050 00			6	Spacer
26	1616 4647 00			1	Coupling ring
27	0211 1957 35			6	Cap screw
28	0337 5202 00			1	Key
29	0196 1360 00			1	Set screw
30	0211 1363 00			9	Cap screw
31				1	Lifting eye
	1615 4287 00				- XA(S)90DdA, XA(S)125Dd, XA(S)125Dd-South Afrika
	1616 4549 00				- XAH(S)125Dd, XA125DdA, XA(S)175Dd, XA175DdA, XA175Dd-South Afrika
32	1619 3856 00		2	1	Seal ring
33	0147 1478 03			4	Bolt
34	0147 1369 03			2	Bolt
35	1616 4652 00			2	Screen

1 Kit 2910 4045 00
2 Kit 2910 0156 00

1) "See ASL collection: binder 21 - Tab 06 and binder 23 - Tab 61" /
"Zie ASL collectie: binder 21 - tab 06 en binder 23 - tab 61" /
"Se ASL-samling: pärm 21 - flik 06 och pärm 23 - flik 61" /
"Siehe ASL Sammlung: Band 21 - Leitkarte 06 und Band 23 - Leitkarte 61" /
"Voir la collection ASL: dossier 21 - table 06 et dossier 23 - table 61" /
"Véase colección de ASL: guardapapeles 21 - saliente 06 y guardapapeles 23 - saliente 61" /
"Vedere collezione ASL: Raccoglitore 21 - separatore 06 e raccoglitore 23 - separatore 61"

1611 4604 67 08/1611 4654 61 05/1611 4656 60 02/
1611 4656 65 11/1611 5568 90 02/1611 5568 91 03/
1611 5568 92 02/1611 5568 93 01
17_022_2_0_0


54
57
55
56
49
50
51
38
37
41
52
53
43
48
47
36
35
33
34
40
42
39
44
46
45
31
32
27
29
28
30
26
25
24
23
22
62
63
61
20
21
18
19
14
2
8
58
59
13
12
17
16
10
9
1
60
5
3
7
6
11
4
16
15

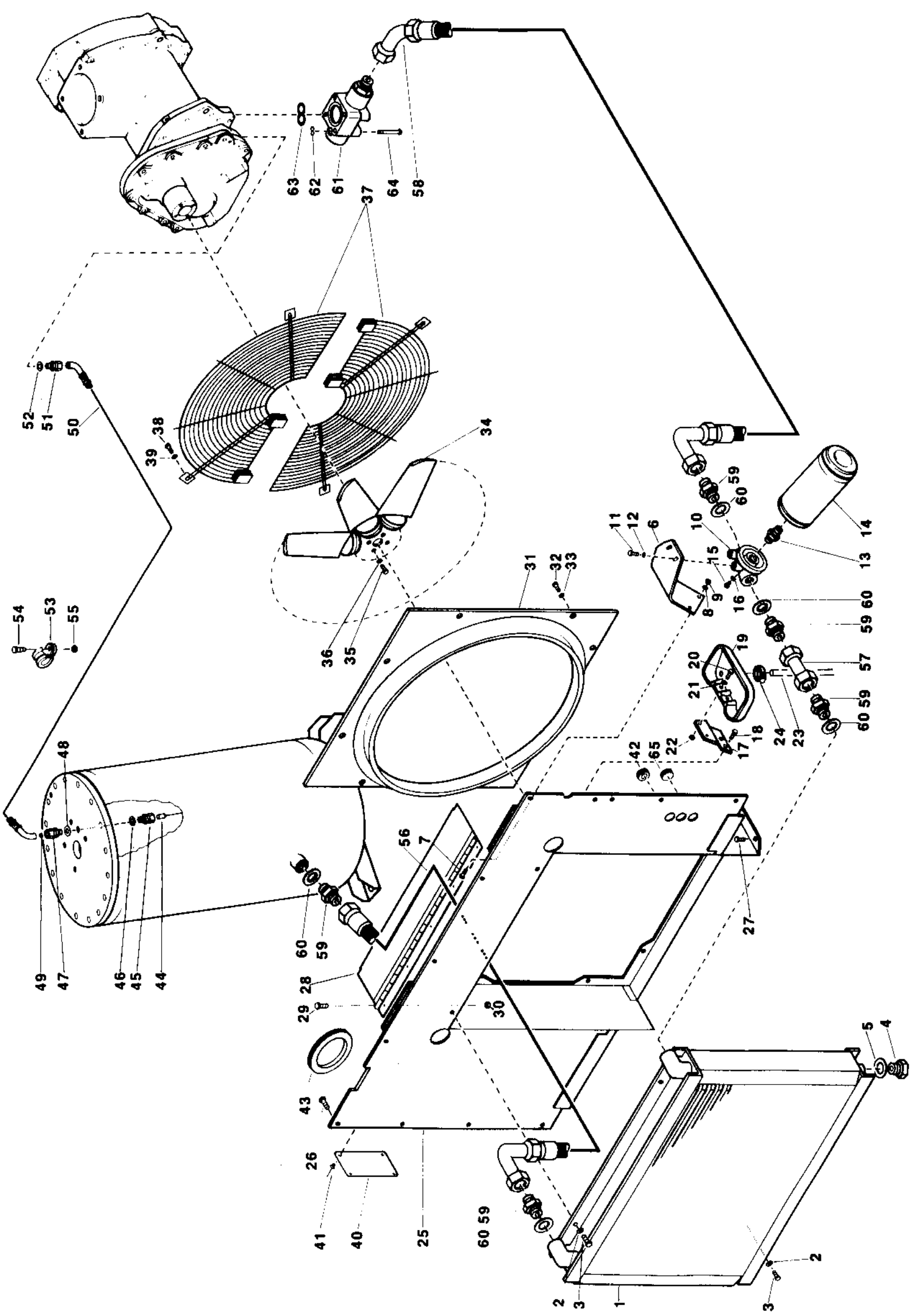
Air inlet
Luchtinlaat
Luftintag
Lufteinlaß
Admission d'air
Entrada de aire
Presa d'aria

Ref.	A	B	C	D	Designation
-				1	**Air filter**
	2252 6180 00		**1)3)**		**- "**
	1616 4445 00		**2)4)**		**- "**
1	* * *	•		1	Housing
2		•		1	Cyclone
	2900 0218 00		1)3)		- "
	2900 0219 00		2)4)		- "
3		•		1	Element
	1619 2798 00		1)3)		- "
	1619 2799 00		2)4)		- "
4		•		1	Cover
	1619 3193 00		1)3)		- "
	1619 3195 00		2)4)		- "
5	1619 3192 00	•		2	Clamp
6		•		1	Cover
	1619 3191 00		1)3)		- "
	1619 3194 00		2)4)		- "
7	1619 3930 00	•		1	Nut
8	1616 4551 00			2	Support
9	1616 4865 00		1)3)	4	- Spacer
10	1616 4858 00		3)	1	- Support
11				1	Support
	1619 2739 00		1)3)		- "
	1619 2737 00		2)4)		- "
12	0147 1321 03			2	Bolt
13	0301 2335 00			4	Washer
14	0266 2110 00			2	Nut
15					Bolt
	0147 1365 03		1)	4	- "
	0147 1365 03		3)	2	- "
	0147 1366 03		3)	2	- "
	0147 1360 03		2)4)	4	- "
16	0301 2344 00			8	Washer
17	0266 2111 00			4	Nut
18				1	Air duct
	1616 4552 00		1)3)		- "
	1616 4553 00		2)4)		- "
19	0147 1322 03			2	Bolt
20	0300 8005 00			2	Washer
21	1619 6838 00			2	Nut
22	1619 3790 01			1	Warning device
23	1619 3794 00			1	Felt disc
24	0657 5742 00			1	Gasket
25	1612 2152 00			1	Nipple
26	0653 1046 00		**1**	1	Gasket
27	- - -			1	Unloading valve
28				1	Hump hose
	2250 9578 00		1)3)		- "
	2250 8002 00		2)4)		- "
29	0347 4411 00			1	Hose clip
30				1	Hose clip
	0347 4399 00		1)3)		- "
	0347 4411 00		2)4)		- "

Ref.	A	B	C	D	Designation
31	1613 1368 01		1)2)4)	1	- Hose
	1616 3464 00		3)	1	- Cap
32					Hose clip
	0347 4052 15		1)2)4)	2	- "
	0347 4370 00		3)	1	- "
33	1616 4853 00		3)	1	- Support
34	1619 2766 02		3)	4	- Bolt
35	0333 3227 00		3)	4	- Lockwasher
36	0266 2110 00		3)	8	- Nut
-	**1619 5041 00**		**3)**	**1**	**- Air filter**
37	* * *	•		1	Housing
38	2900 0217 00	•		1	Cyclone
39	1619 2847 00	•		1	Element
40	1619 3733 00	•		1	Cover
41	1619 3730 00	•		2	Clamp
42	1619 3732 00	•		1	Cover
43	1619 3731 00	•		1	Nut
44	1619 2705 00		3)	1	- Support
45	0147 1398 03		3)	2	- Bolt
46	0301 2358 00		3)	2	- Washer
47	0333 3237 00		3)	2	- Lockwasher
48	0266 2112 00		3)	2	- Nut
49	1614 4346 00		3)	1	- Elbow
50	1616 4854 00		3)	1	- Pipe
51	0347 6115 00		3)	2	- Hose clip
52	1616 4855 00		3)	1	- Elbow
53	0347 4377 00		3)	2	- Hose clip
54	1619 3790 01		3)	1	- Warning device
55	1619 3794 00		3)	1	- Felt disc
56	0657 5742 00		3)	1	- Gasket
57	1619 2766 00		3)	1	- Bolt
58	0147 1362 03		3)	2	- Bolt
59	0333 3232 00		3)	2	- Lockwasher
60	* * *		3)	1	- Oil filter
61	1202 7024 00		**1,2**	1	Gasket
62	0147 1363 03			4	Bolt
63	0301 2344 00			4	Washer

1 Kit 2910 3035 00
2 Kit 2910 4046 00
1) XA(S)90DdA, XA(S)125Dd
2) XA125DdA, XA(S)175Dd
3) XA175DdA
4) XAH(S)125Dd

1611 4608 90 01/1611 4608 92 02/1611 4661 65 05/
1611 4661 90 01/1611 4661 92 01/1616 4445 00 01/
1619 5041 00 01/2252 6180 00 01
06_053_1_0_0



11_070_2

Oil system and cooling
Oliesysteem en koeling
Oljesystem och kylning
Ölkreislauf und Kühlung
Système d'huile et refroidissement
Sistema de aceite y refrigeración
Sistema dell'olio e raffreddamento

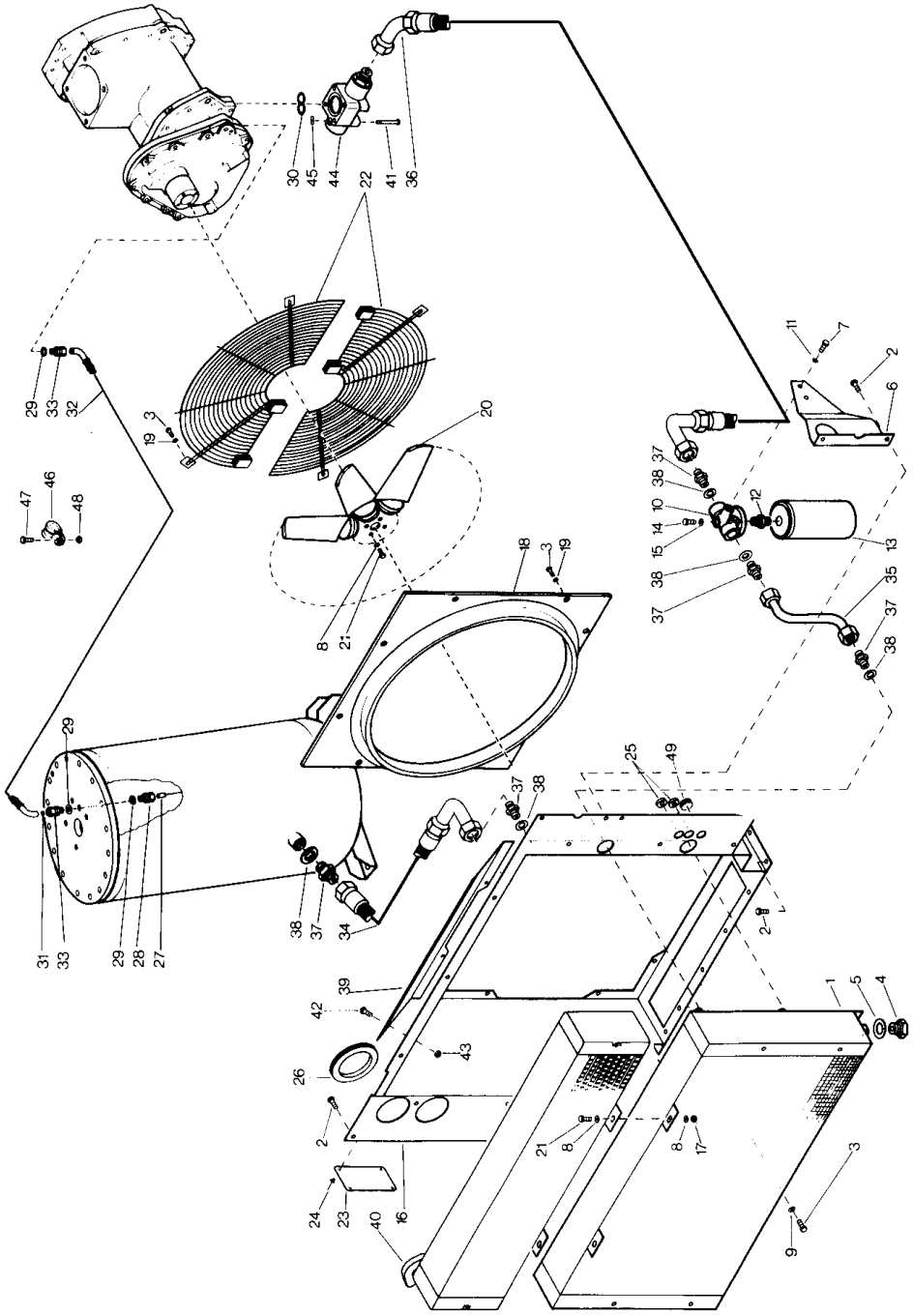
Ref.	A	B	C	D	Designation
1				1	Oil cooler
	1615 4647 00				- XA(S)90DdA, XA(S)125Dd
	1616 5025 00				- XA125DdA, XA(S)175Dd, XA175DdA
	1615 4389 00				- XAH(S)125Dd
2	0300 8005 00			4	Washer
3	1619 5337 01			4	Bolt
4	0686 4204 00			2	Plug
5	0661 1033 00			2	Gasket
6	1616 4611 00			1	Support
7	0147 1323 03			2	Bolt
8	0301 2335 00			2	Washer
9	0266 2110 00			2	Nut
10	1612 2668 00			1	Housing
11	0147 1323 03			2	Bolt
12	0333 3227 00			2	Lock washer
13				1	Nipple
	2254 7257 00				- XAH(S)125Dd
	1619 3770 00				- XA(S)90DdA, XA(S)125Dd, XA125DdA, XA(S)175Dd, XA175DdA
14				1	Oil filter
	1202 8040 00				- XAH(S)125Dd
	1613 6105 00				- XA(S)90DdA, XA(S)125Dd, XA125DdA, XA(S)175Dd, XA175DdA
15	0686 4201 03			1	Plug
16	0653 1046 00			1	Gasket
17	1616 4786 00			1	Support
18	1619 2766 00			2	Bolt
19	1616 2770 00			1	Tray
20	0147 1247 03			2	Bolt
21	0301 2321 00			2	Washer
22	0291 1108 00			2	Lock nut
23	0099 9910 28			AR	Hose
24	0347 0104 00			1	Hose clip
25				1	Fan housing
	1615 4273 00				- XA(S)90DdA, XA(S)125Dd
	1616 4487 00				- XA175Dd
	1616 4487 00		1)		- XAS175Dd, XA125DdA, XA175DdA, XAH(S)125Dd
26	1619 2766 00			12	Bolt
27	1619 2766 00			4	Bolt
28				1	Door
	1615 4425 00				- XA(S)90DdA, XA(S)125Dd
	1616 4894 00				- XA(S)175Dd, XA125DdA, XA175DdA, XAH(S)125Dd

Ref.	A	B	C	D	Designation
29	0147 1244 03			5	Bolt
30	0291 1108 00			5	Lock nut
31	1616 4489 00			1	Fan ring
32	1619 5337 01			4	Bolt
33	1616 3286 00			4	Washer
34	**1616 4491 01**			**1**	**Fan**
x	2900 1014 00	•		10	Fan blade
35	0147 1325 03			4	Bolt
36	0301 2335 00			4	Washer
37	1616 4787 00			2	Screen
38	1619 5337 01			4	Bolt
39	1616 3286 00			4	Washer
40	1091 1204 00			1	Patent plate
41	0129 3103 00			4	Rivet
42	0698 0156 00			2	Bushing
43	1202 8009 00			1	Ring
44	1616 5147 00			1	Pipe
45	**0581 0028 01**			**1**	**Pipe coupling**
46	0653 1062 00		**2**	1	Gasket
47	**0581 0000 52**			**1**	**Pipe coupling**
48	0653 1062 00		**2**	1	Gasket
49	1613 2609 07			1	Restrictor
50	0574 8461 38			1	Hose assembly
51	**0581 0000 52**			**1**	**Pipe coupling**
52	0653 1062 00		**1,2**	1	Gasket
53				1	Clamp
	1613 0802 00				- 2 x 13
	1613 0803 02				- 3 x 13
54	0147 1246 03			2	Bolt
55	0266 2108 00			2	Nut
56	0575 0125 24			1	Hose assembly
57	1616 4610 00			1	Pipe
58	0575 0125 31			1	Hose assembly
59	1619 5509 00			5	Nipple
60	0661 1038 00		**2**	5	Gasket
61	- - -			1	Oil stop valve
62	0663 3120 00		**1,3**	1	O-ring
63	0663 7135 00		**1,3**	1	O-ring
64	0147 1336 03			4	Bolt
65	1619 5225 00			1	Plug

1 Kit 2910 4046 00
2 Kit 2910 6007 00
3 Kit 2910 3009 00

1) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma / Da rivestira con plastica espansa 1619 6138 01 (AR)

11_070_2_0_0


30
45
44
22
41
36
29
33
32
3
19
20
47
46
48
8
21
18
3
19
11
7
2
6
37
38
10
14
15
12
13
35
37
38
29
31
33
29
28
27
38
37
34
25
49
37
38
2
39
42
43
26
2
24
23
40
16
21
8
8
17
1
5
4
3
9

11_074_1

Oil system and cooling 3)
Oliesysteem en koeling
Oljesystem och kylning
Ölkreislauf und Kühlung
Système d'huile et refroidissement
Sistema de aceite y refrigeración
Sistema dell'olio e raffreddamento

Ref.	A	B	C	D	Designation
1	1615 4590 00			1	Oil cooler
2	1619 2766 00			AR	Bolt
3	1619 5337 01			10	Bolt
4	0686 4204 00			1	Plug
5	0661 1033 00			1	Gasket
6	1613 6492 00			1	Support
7	0147 1323 03			2	Bolt
8	0301 2335 00			8	Washer
9	0300 8005 00			2	Washer
10	1612 2668 00			1	Housing
11	0333 3227 00			2	Lock washer
12	2254 7257 00			1	Nipple
13	1202 8040 00			1	Oil filter
14	0686 4201 03			1	Plug
15	0653 1046 00			1	Gasket
16	1615 4597 00		1)	1	Fan housing
17	0291 1110 00			2	Nut
18	1616 4489 00			1	Fan ring
19	1616 3286 00			8	Washer
20	**1616 4491 01**			**1**	**Fan**
x	2900 1014 00	•		10	Fan blade
21	0147 1325 03			6	Bolt
22	1616 4787 00			2	Screen
23	1091 1204 00			1	Patent plate
24	0129 3103 00			4	Rivet
25	0698 0156 00			2	Bushing
26	1202 8009 00			1	Ring
27	1616 5147 00			1	Pipe
28	**0581 0028 00**			**1**	**Pipe coupling**
29	0653 1062 00		**1,2**	3	Gasket
30	0663 7135 00		**1,3**	1	O-ring
31	1613 2609 07			1	Restrictor
32	0574 8461 38			1	Hose assembly
33	**0581 0000 52**			**2**	**Pipe coupling**
34	0575 0365 38			1	Hose assembly
35	1615 4596 00			1	Pipe
36	0575 0125 31			1	Hose assembly
37	1619 5509 00			5	Nipple

Ref.	A	B	C	D	Designation
38	0661 1038 00		**2**	5	Gasket
39	1615 4601 00			1	Door
40	- - -		2)	1	Aftercooler
41	0147 1336 03			4	Bolt
42	0147 1244 03			5	Bolt
43	0291 1108 00			5	Lock nut
44	- - -			1	Oil stop valve
45	0663 3120 00		**1,3**	1	O-ring
46				1	Clamp
	1613 0802 00				- 2 x 13
	1613 0803 02				- 3 x 13
47	0147 1246 03			2	Bolt
48	0266 2108 00			2	Nut
49	1619 5225 00			1	Plug

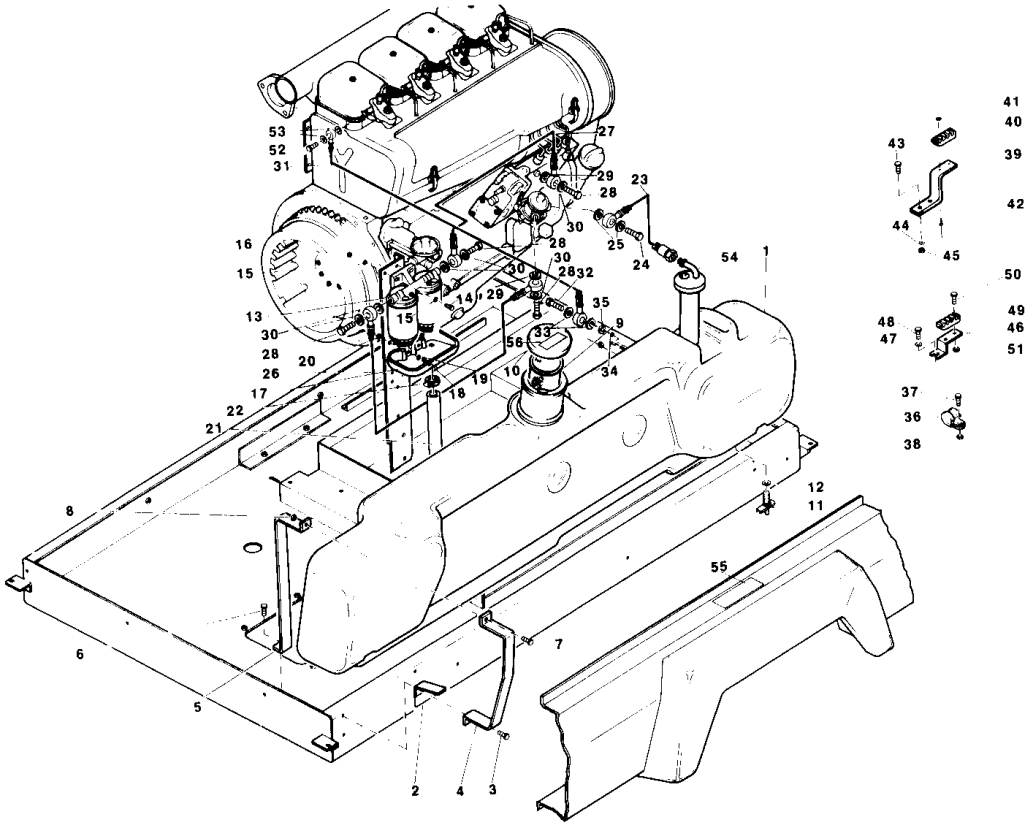
1 Kit 2910 4046 00
2 Kit 2910 6007 00
3 Kit 2910 3009 00

1) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma / Da rivestira con plastica espansa 1619 6138 01 (AR)

2) See "Air receiver and delivery pipes" / Zie "Luchtketel en persleidingen" / Se "Luftbehållare och utloppsrör" / Siehe "Luftbehälter und Druckrohre" / Voir "Réservoir d'air et tuyaux de refoulement" / Véase "Depósito de aire y tubos de descarga" / Vedere "Serbatoio dell'aria e tubi della mandata"

3) With aftercooler / Met nakoeler / Med efterkylare / Mit Nachkühler / Avec refroidisseur final / Con refrigerador posterior / Con refrigeratore finale

11_074_1_0_0


41
40
43
39
42
44
45
50
49
48
46
47
51
37
36
38
53
52
31
27
29
28
23
30
25
24
54
1
16
15
28
30
30
28
32
14
29
35
13
15
9
30
33
56
28
20
34
26
10
19
17
18
22
21
12
11
8
55
6
7
5
2
4
3

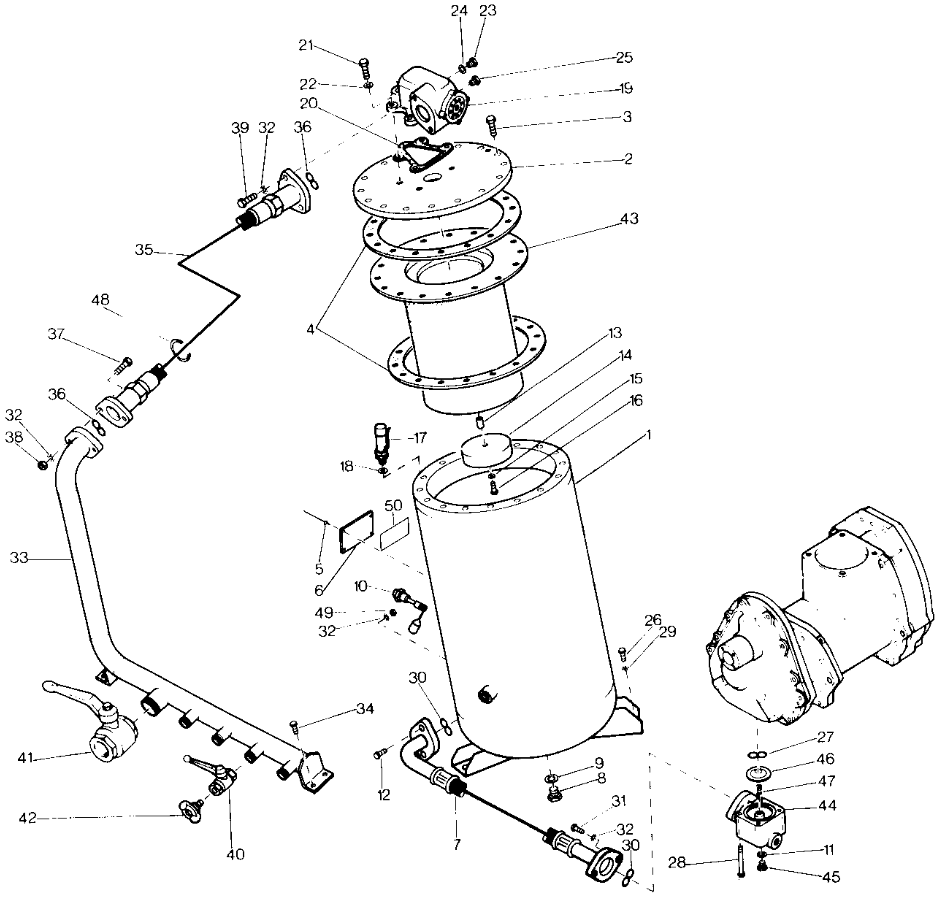
Fuel system
Brandstofsysteem
Bränslesystem
Kraftstoffsystem
Système de combustible
Sistema de combustible
Sistema del carburante

Ref.	A	B	C	D	Designation
1	1202 5355 00			1	Fuel tank
2	1614 4308 00			2	Bracket
3	1619 5337 01			4	Bolt
4	1614 4296 02			2	Strap
5	1614 4296 03			2	Strap
6	1619 2766 00			2	Bolt
7	0147 1329 03			2	Bolt
8	0291 1110 00			2	Lock nut
9	1619 6590 00			1	Strainer
10	1619 6591 00			1	Cover
11	0858 1101 02			1	Drain cock
12	0661 1025 00			1	Gasket
13	**1619 6532 00**			**1**	**Fuel filter**
x	* * *	•		1	Head
x	2900 0687 00	•		2	Filter element
x	1619 5004 00	•		2	Drain screw
x	1619 5005 00	•		2	Gasket
14	0147 1365 03			2	Bolt
15	0301 2344 00			4	Washer
16	0266 2111 00			2	Nut
17	1616 2770 00			1	Tray
18	0147 1247 03			2	Bolt
19	0301 2321 00			2	Washer
20	0291 1108 00			2	Lock nut
21	0099 9910 28			AR	Hose
22	0347 0104 00			1	Hose clip
23	0574 9332 11			1	Hose assembly
24	0627 4209 03			1	Pressure screw
25	0661 1023 00			2	Gasket
26	0574 9712 42			1	Hose assembly
27	0574 9712 38			1	Hose assembly
28	0627 4209 03			4	Pressure screw
29	0661 1023 00			2	Gasket
30	0653 1072 00			6	Gasket
31	0574 9721 37			1	Hose assembly
32	0627 4200 05			1	Pressure screw
33	0661 1023 00			2	Gasket
34	1614 4981 00			1	Washer
35	1614 4982 00			1	Washer
36	1613 0803 02			1	Clamp
37	0147 1246 03			1	Bolt
38	0266 2108 00			1	Nut
x	**1614 3716 80**		**2)**	**1**	**Clamping**
39	1614 3716 00	•		1	Bracket
40	1613 2684 00	•		1	Support
41	0301 2318 00	•		2	Washer
42	0129 3177 00	•		2	Rivet
43	0147 1321 03			2	Bolt
44	0333 3227 00			2	Lock washer
45	0266 2110 00			2	Nut
46	1616 3342 00			1	Support
47	0301 2335 00			1	Washer
48	0147 1321 03			1	Bolt
49	1613 2684 00			1	Support
50	0160 6081 00			2	Screw
51	0266 2108 00			2	Nut
52	* * *			1) 1	Pressure screw
53	* * *			1) 2	Gasket
54	**1619 7738 03**			**1**	**Level gauge**
x	0663 2103 94	•		1	O-ring
55				1	Label
	1614 4956 00				- English
	1079 9902 32				- Dutch
	1079 9902 33				- Swedish
	1079 9902 34				- German
	1079 9902 35				- French
	1079 9902 36				- Spanish
	1079 9902 37				- Italian
56				1	Label
	1612 4264 00				- English
	1079 9912 92				- Dutch
	1079 9912 93				- Swedish
	1079 9912 94				- German
	1079 9912 95				- French
	1079 9912 96				- Spanish
	1079 9912 97				- Italian

1) Engine part / Motoronderdeel / Motorreservdel / Motorteil / Pièce moteur / Parte, motor / Parte del motore
2) Not for XAH(S)125Dd / Niet voor XAH(S)125Dd / Inte för XAH(S)125Dd / Nicht für XAH(S)125Dd / Pas pour XAH(S)125Dd / No para XAH(S)125Dd / Non per XAH(S)125Dd

1611 4615 60 04/1611 4615 61 02/1614 3716 80 01/
1619 6532 00 01
32_084_4_0_0

0006034B (1648x2323x2 tiff)



Air receiver and delivery pipes
Luchtketel en persleidingen
Luftbehållare och utloppsrör
Luftbehälter und Druckrohre
Réservoir d'air et tuyaux de refoulement
Depósito de aire y tubos de descarga
Serbatoio dell'aria e tubi della mandata

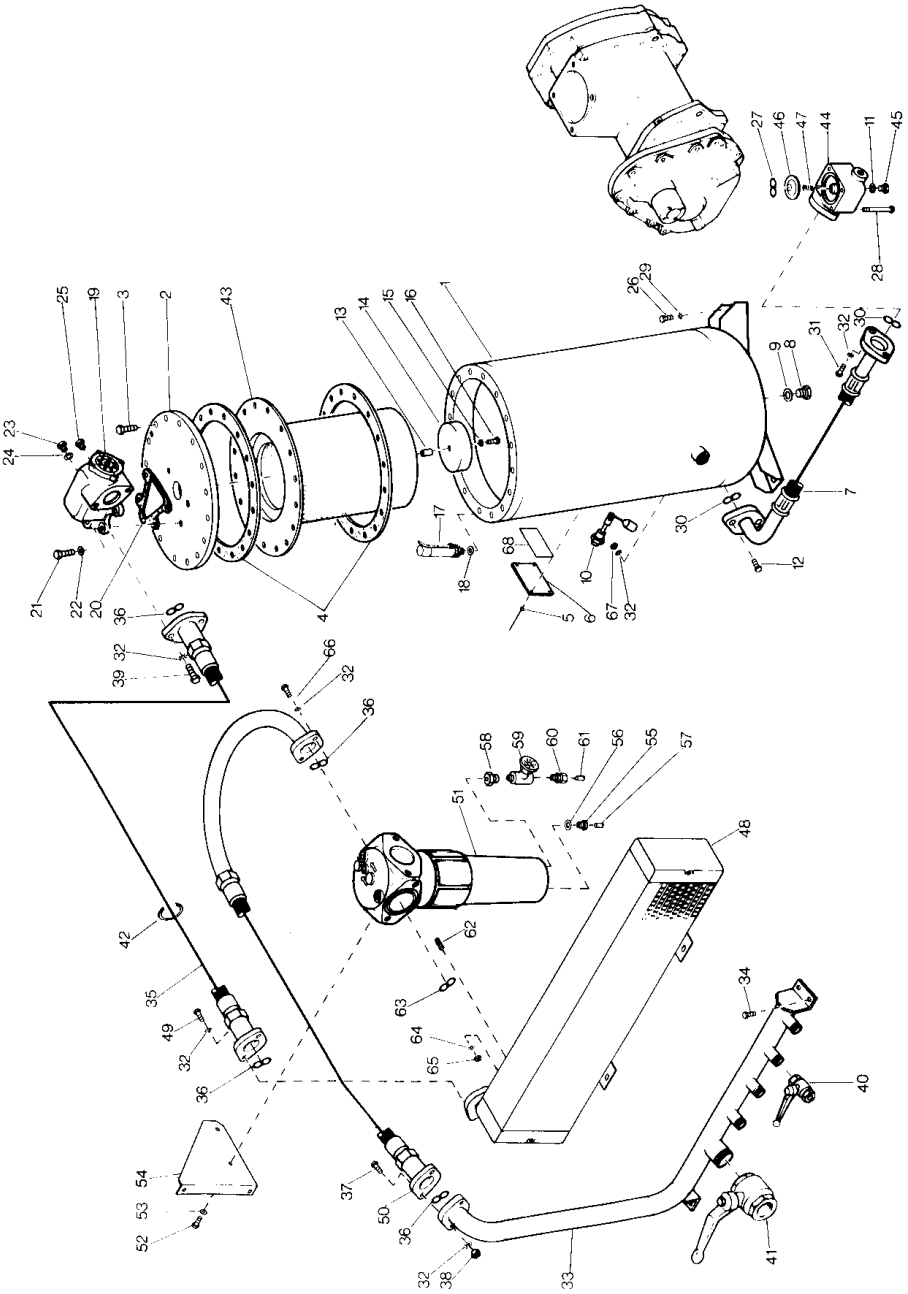
Ref.	A	B	C	D	Designation
-			.....	1	**Air receiver**
	1613 6258 80		**L**.....		**- "**
	1613 6258 83		**T**.....		**- "**
	1613 6409 84		**Ta**.....		**- "**
	1613 6258 89		**S**.....		**- "**
	1613 6258 87		**An**		**- "**
	1613 6409 87		**3)-An**.....		**- "**
	1613 6258 86		**Sa**.....		**- "**
	1613 6258 85		**D**.....		**- "**
	1613 6489 82		**As**.....		**- "**
1	* * *	•	.....	1	Vessel
2		•	.....	1	Cover
	1616 4733 00		(As).....		- "
	1616 4748 00		3)-(An).....		- "
	1616 4748 00		(D)		- "
	1613 6399 00		.....		- "
3		•	.....	16	Bolt
	0147 1479 17		(T).....		- "
	0147 1479 20		(An)		- "
	0147 1958 02		(As).....		- "
	0147 1479 03		.....		- "
4	1202 7007 00	•	**2**	2	Gasket
5	0129 3115 00	•	.....	4	Blind rivet
6		•	.....	1	Data plate
	1613 0910 13		(L).....		- "
	1613 0910 16		(T,Ta)		- "
	1613 0910 21		(D)		- "
	1613 0910 22		(Sa)		- "
	1613 0910 14		(An)		- "
	1613 0910 15		(S)		- "
	1613 5420 00		As.....		- "
7	1613 6495 00		.....	1	Hose assembly
8	0686 4206 00		.....	1	Plug
9	0661 1038 00		**2**.....	1	Gasket
10	1616 5108 00		.....	1	Level gauge
11	0661 1033 00		**2**.....	1	Gasket
12	0147 1405 03		.....	2	Bolt
13	1616 4891 00		.....	1	Spacer
14	1612 2607 00		.....	1	Cover
15	0301 2335 00		.....	1	Washer
16	0147 1328 03		.....	1	Bolt
17			.....	1	**Safety valve**
	0830 1006 22		**T**.....		**- 9.3 bar(e)**
	0830 1005 20		**An**		**- 9.3 bar(e)**
	0830 1005 35		**An**		**- 15 bar(e)-XAH(S)**
	0830 1005 25		**As**.....		**- 135 psig**
	0830 1005 40		**As**.....		**- 210 psig-XAH(S)**
	0830 1006 43		**T**.....		**- 15 bar(e)-XAH(S)**
18	0653 1165 00		3-2).....	1	- Gasket
19	- - -		.....	1	Min. press. vlv.
20	1202 9973 00		**2,3**	1	Gasket
21	0147 1363 03		.....	4	Bolt

Ref.	A	B	C	D	Designation
22	0653 1046 00		**2,3**.....	4	Gasket
23	0605 8828 05		.....	1	Reducer
24	0653 1189 00		**3**.....	1	Gasket
25	0686 6130 00		.....	1	Plug
26	0147 1475 03		.....	3	Bolt
27	0663 7138 00		**1**.....	1	O-ring
28	0147 1373 03		.....	4	Bolt
29	0333 3244 00		.....	3	Lock washer
30	0663 7135 00		**2**.....	2	O-ring
31	0147 1401 03		.....	2	Bolt
32	0333 3237 00		**2,3**.....	4	Lock washer
33	1616 4617 00		.....	1	Manifold
34	1619 2766 00		.....	4	Bolt
35			.....	1	Hose assembly
	1616 4619 02		.....		- XA(S)90DdA, XA(S)125, XA175, XA175DdA
	1616 4619 01		.....		- XAS175, XA125DdA, XAH(S)125
36	0663 9868 00		**2,3**.....	2	O-ring
37	0147 1404 03		.....	2	Bolt
38	0266 2112 00		.....	2	Nut
39	0147 1402 03		.....	2	Bolt
40	1619 6153 05		.....	4	Valve
41	1619 6153 08		.....	1	Valve
42			.....	4	Coupling
	9000 0302 00		1)		- "
	1310 1365 00		1)(As).....		- "
43	1616 4656 00		.....	1	Oil separator
44	1202 6566 00		.....	1	Housing
45	0686 4204 00		.....	1	Plug
46	1202 6456 00		.....	1	Non return valve
47	1613 5165 00		.....	1	Spring
48	1619 2795 00		.....	AR	Seal
49	0266 2112 00		.....	2	Nut
50	1079 9916 80		.....	1	Label

1 Kit 2910 4046 00
2 Kit 2910 6007 00
3 Kit 2910 3029 00

1) Not for XAH(S) / Niet voor XAH(S) / Inte för XAH(S) / Nicht für XAH(S) / Pas pour XAH(S) / No para XAH(S) / Non per XAH(S)
2) Not for An / Niet voor An / Inte för An / Nicht für An / Pas pour An / No para An /Non per An
3) XAHS125-Italy

39_159_2_0_0



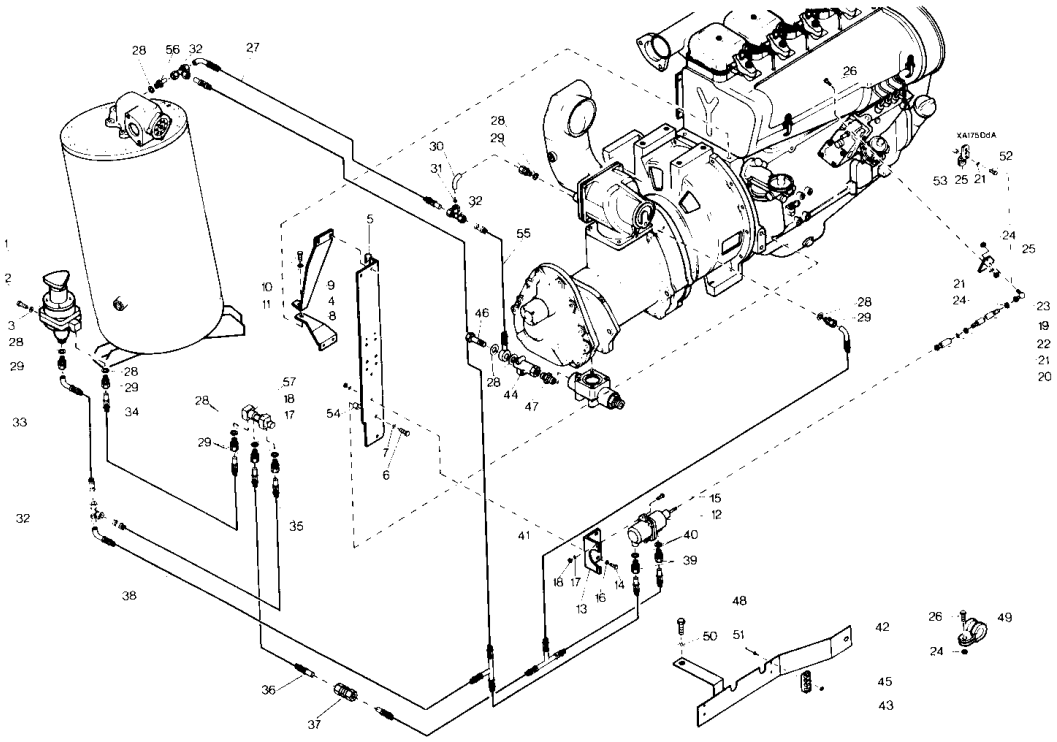
Air receiver and delivery pipes 1)
Luchtketel en persleidingen
Luftbehållare och utloppsrör
Luftbehälter und Druckrohre
Réservoir d'air et tuyaux de refoulement
Depósito de aire y tubos de descarga
Serbatoio dell'aria e tubi della mandata

Ref.	A	B	C	D	Designation
-			.....	1	**Air receiver**
	1613 6258 80		**L**.....		**- "**
	1613 6258 83		**T**.....		**- "**
	1613 6409 84		**Ta**.....		**- "**
	1613 6258 89		**S**.....		**- "**
	1613 6258 87		**An**.....		**- "**
	1613 6409 87		**3)-An**.....		**- "**
	1613 6258 86		**Sa**.....		**- "**
	1613 6258 85		**D**.....		**- "**
	1613 6489 82		**As**.....		**- "**
1	***	•	.....	1	Vessel
2		•	.....	1	Cover
	1616 4733 00		(As).....		- "
	1616 4748 00		3)-(An).....		- "
	1616 4748 00		(D).....		- "
	1613 6399 00		.....		- "
3		•	.....	16	Bolt
	0147 1479 17		(T).....		- "
	0147 1479 20		(An).....		- "
	0147 1958 02		(As).....		- "
	0147 1479 03		.....		- "
4	1202 7007 00	•	**2**.....	2	Gasket
5	0129 3115 00	•	.....	4	Blind rivet
6		•	.....	1	Data plate
	1613 0910 13		(L).....		- "
	1613 0910 16		(T,Ta).....		- "
	1613 0910 21		(D).....		- "
	1613 0910 22		(Sa).....		- "
	1613 0910 14		(An).....		- "
	1613 0910 15		(S).....		- "
	1613 5420 00		As.....		- "
7	1613 6495 00		.....	1	Hose assembly
8	0686 4206 00		.....	1	Plug
9	0661 1038 00		**2**.....	1	Gasket
10	1616 5108 00		.....	1	Level gauge
11	0661 1033 00		**2**.....	1	Gasket
12	0147 1405 03		.....	2	Bolt
13	1616 4891 00		.....	1	Spacer
14	1612 2607 00		.....	1	Cover
15	0301 2335 00		.....	1	Washer
16	0147 1328 03		.....	1	Bolt
17			.....	**1**	**Safety valve**
	0830 1006 22		**T**.....		**- 9.3 bar(e)**
	0830 1005 20		**An**.....		**- 9.3 bar(e)**
	0830 1005 35		**An**.....		**- 15 bar(e)-XAH(S)**
	0830 1005 25		**As**.....		**- 135 psig**
	0830 1005 40		**As**.....		**- 210 psig-XAH(S)**
	0830 1006 43		**T**.....		**- 15 bar(e)-XAH(S)**
18	0653 1165 00		**3-2)**.....	1	- Gasket
19	---		.....	1	Min. press. vlv.
20	1202 9973 00		**2,3**.....	1	Gasket
21	0147 1363 03		.....	4	Bolt
22	0653 1046 00		**2,3**.....	4	Gasket
23	0605 8828 05		.....	1	Reducer
24	0653 1189 00		**3**.....	1	Gasket
25	0686 6130 00		.....	1	Plug
26	0147 1475 03		.....	3	Bolt
27	0663 7138 00		**1**.....	1	O-ring
28	0147 1373 03		.....	4	Bolt
29	0333 3244 00		.....	3	Lock washer
30	0663 7135 00		**2**.....	2	O-ring
31	0147 1401 03		.....	2	Bolt
32	0333 3237 00		**2,3**.....	8	Lock washer
33	1616 4617 00		.....	1	Manifold
34	1619 2766 00		.....	4	Bolt
35	1615 4599 00		.....	1	Hose assembly
36	0663 9868 00		**2,3**.....	4	O-ring
37	0147 1404 03		.....	2	Bolt
38	0266 2112 00		.....	4	Nut
39	0147 1402 03		.....	2	Bolt
40	1619 6153 05		.....	4	Valve
41	1619 6153 08		.....	1	Valve
42	1619 2795 00		.....	AR	Seal
43	1616 4656 00		.....	1	Oil separator
44	1202 6566 00		.....	1	Housing
45	0686 4204 00		.....	1	Plug
46	1202 6456 00		.....	1	Non return valve
47	1613 5165 00		.....	1	Spring
48	1615 4591 00		.....	1	Aftercooler
49	0147 1403 03		.....	2	Bolt
50	1615 4598 01		.....	1	Hose assembly
51	**1619 7472 06**		.....	**1**	**Moisture trap**
x	2900 1017 00	•	.....	1	Drain valve
x	0663 2101 71	••	.....	1	O-ring
52	0147 1362 03		.....	2	Bolt
53	0301 2344 00		.....	2	Washer
54	1615 4600 00		.....	1	Support
55	9090 1512 00		.....	1	Pipe coupling
56	0653 1062 00		.....	1	Gasket
57	0070 7250 05		.....	AR	Hose
58	0605 8300 35		.....	1	Bushing
59	1619 7336 00		.....	1	Drain valve
60	9090 1507 00		.....	1	Pipe coupling
61	0070 7250 04		.....	AR	Hose
62	0246 1238 04		.....	2	Stud
63	0663 7136 00		.....	1	O-ring
64	0333 3232 00		.....	2	Lock washer
65	0266 2111 00		.....	2	Nut
66	0147 1364 03		.....	2	Bolt
67	0266 2112 00		.....	2	Nut
68	1079 9916 80		.....	1	Label

1 Kit 2910 4046 00
2 Kit 2910 6007 00
3 Kit 2910 3029 00

1) With aftercooler / Met nakoeler / Med efterkylare / Mit Nachkühler / Avec refroidisseur final / Con refrigerador posterior / Con refrigeratore finale
2) Not for An / Niet voor An / Inte för An / Nicht für An / Pas pour An / No para An /Non per An
3) XAHS125-Italy

39_177_1_0_0


XA175DdA

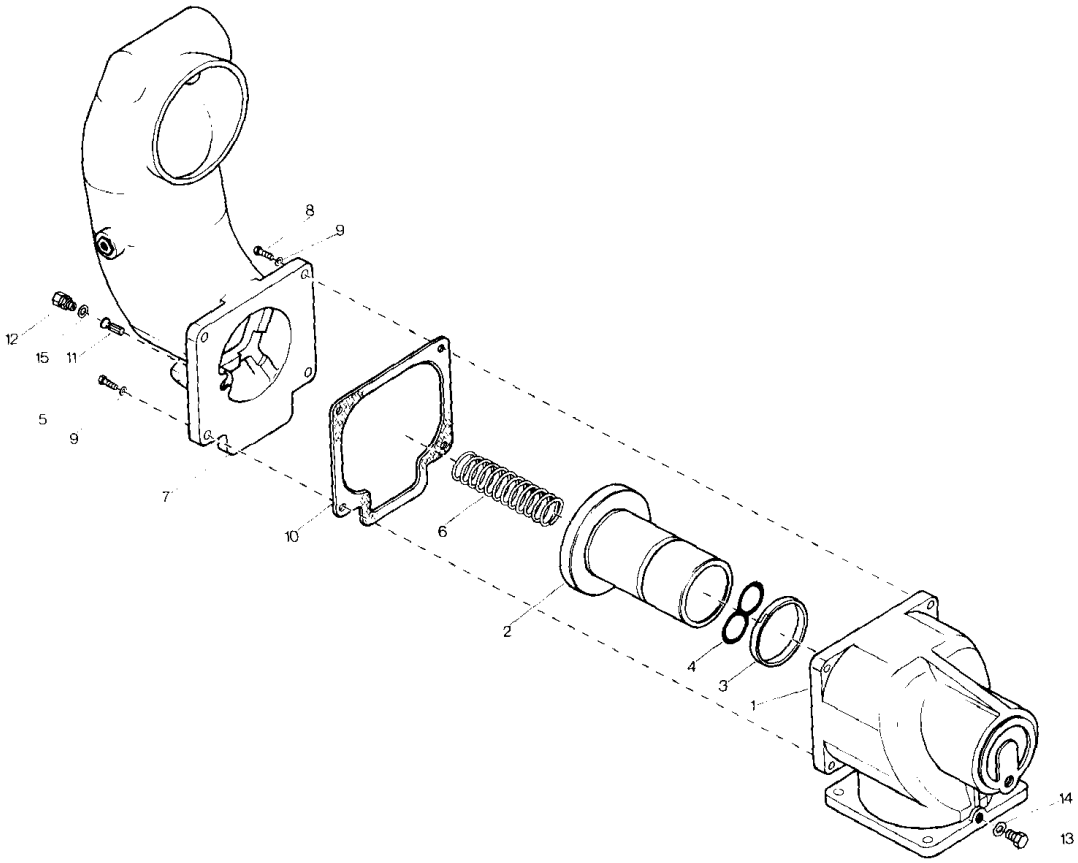
Connections for speed regulation and unloading
Aansluitingen tussen snelheidsregeling en ontlastsysteem
Anslutningar mellan varvtalsreglering och avlastningssystem
Anschlüsse für Drehzahlregelung und Entlastung
Connexions du système de régulation de vitesse et de décharge
Conexiones entre regulación de velocidad y sistema de descarga
Connessioni per la regolazione della velocità e la messa a vuoto

Ref.	A	B	C	D	Designation
1	- - -			1	Regul. valve
2	0147 1359 03			2	Bolt
3	0301 2344 00			2	Washer
4				1	Bracket
	1616 3491 00		1)		- *
	1616 2769 00				- *
5	1619 2795 00			AR	Seal
6				2	Bolt
	0147 1409 03		1)		- *
	0147 1403 03				- *
7	0333 3237 00			2	Lock washer
8	1614 2860 00			1	Stiffener
9	1614 4414 00			1	Stiffener
10	0147 1360 03			1	Bolt
11	0301 2344 00			1	Washer
12	- - -			1	Speed regulator
13	1613 2483 00			1	Bracket
14	0147 1323 03			4	Bolt
15	0147 1326 03			2	Bolt
16	0301 2335 00			2	Washer
17	0333 3227 00		3	4	Lock washer
18	0266 2110 00			4	Nut
19				1	Link
	1613 1214 05				- XA(S)90DdA, XA(S)125
	1613 1214 07				- XA(S)175, XA125DdA, XAH(S)125, XA175DdA
20	1202 5627 00			1	Ball joint
21	0333 3220 00			3	Lock washer
22	0268 3204 00			1	Nut
23	1619 1639 00			1	Ball joint
24	0266 2108 00			10	Nut
25				1	Plate
	1616 3460 00		1)		- *
	1613 2545 00				- *
26	0147 1246 03			9	Bolt
27	0574 8102 27			1	Hose assembly
28	0653 1062 00		1,2,4,5,6	AR	Gasket
29	**0581 0028 00**			**6**	**Pipe coupling**
30	1614 4815 00			1	Elbow
31	1613 2609 05			1	Restrictor
32	**0581 2210 00**			**3**	**Tee**
33	1404 1332 00			1	Hose assembly
34	0574 8012 31			1	Hose assembly
35	0574 8012 07			1	Hose assembly
36	0574 8012 05			1	Hose assembly
37	**0581 0808 00**			**1**	**Pipe coupling**
38	1614 4570 02			1	Hose assembly
39	**0581 0000 47**			**2**	**Pipe coupling**
40	0653 1046 00		3	2	Gasket
41	1614 4571 02			1	Hose assembly
42	1616 4867 00			1	Bracket
43	1613 2684 00			2	Support
44	9128 1308 01			1	Blow-down valve
45	0301 2315 00			4	Washer
46	0627 5113 03			1	Press. screw
47	0603 4102 03			1	Nipple
48	0147 1475 03			1	Bolt
49					Clamp
	1613 0801 02			1	- 1 x 13
	1613 0802 00			3	- 2 x 13
	1613 0803 02			3	- 3 x 13
50	0333 3244 00			1	Lock washer
51	0129 3117 00			4	Pop rivet
52	0147 1249 03		1)	1	- Bolt
53	0324 1152 00		1)	1	- Spacer
54	1616 3492 00		1)	2	- Spacer
55	0574 9012 13			1	Hose assembly
56	0580 0506 00			1	Pipe coupling
57	- - -			1	Loading valve

1 Kit 2910 4046 00
2 Kit 2910 6007 00
3 Kit 2910 3006 00
4 Kit 2910 3035 00
5 Kit 2910 3012 00
6 Kit 2910 3007 00
1) XA175 DdA

26_168_2_0_0

Unloading valve
Ontlastventiel
Avlastningsventil
Entlastungsventil
Soupape de décharge
Válvula de descarga
Valvola di messa a vuoto



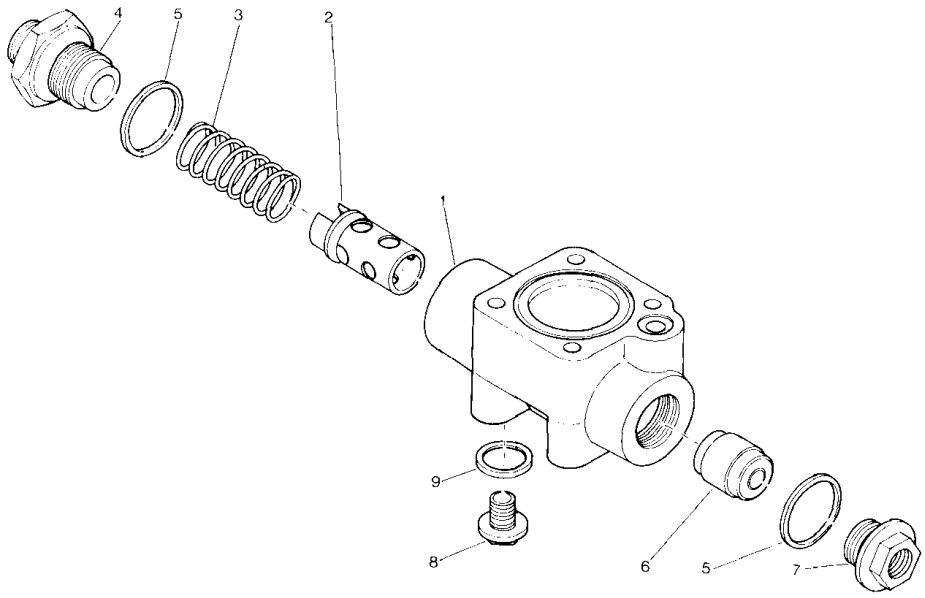
Ref.	A	B	C	D	Designation
-	**1614 4382 81**			1	**Unl. valve**
1	* * *	•		1	Housing
2	1614 5062 00	•		1	Valve
-	**1619 5531 00**	•	1	1	**Seal ring**
3	* * *	••		1	Ring
					TFMA 70x68x7.3 - PTFE NBR Brons 552
4	* * *	••		1	O-ring
5	0147 1330 12	•		2	Bolt
6	1613 3231 00	•		1	Spring
7	1616 4612 00	•		1	Flange
8	0147 1326 03	•		2	Bolt
9	0301 2335 00	•		4	Washer

Ref.	A	B	C	D	Designation
10	1202 7391 00	•	1	1	Gasket
11	1613 2399 00	•		1	Valve
12	**0581 0028 00**	•		**1**	**Pipe coupling**
13	0686 4201 00	•		1	Plug
14	0653 9038 00	•	1	1	Gasket
15	0653 1062 00	•	1	1	Gasket

1 Kit 2910 3035 00

1614 4382 81 01
22_066_0_0_2

Oil stop valve
Olieafsluitklep
Avstängningsventil, olja
Ölabsperrventil
Soupape d'arrêt d'huile
Válvula de cierre de aceite
Valvola di arresto dell'olio

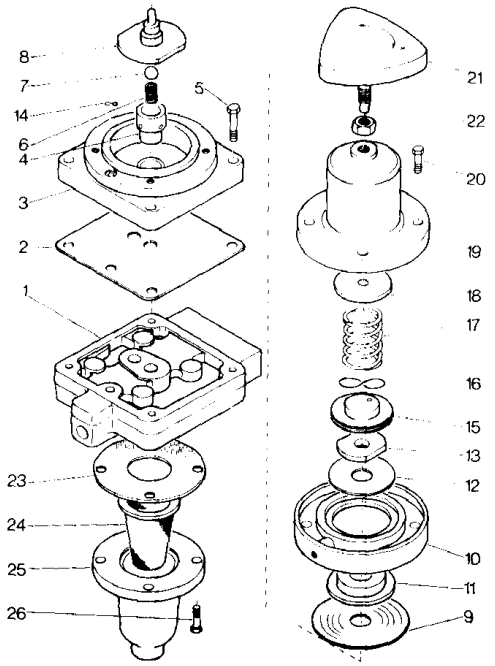


Ref.	A	B	C	D	Designation
-	**1613 2355 82**		.....	1	**Oil stop valve**
1	* * *	•	.....	1	Housing
2	1613 2356 00	•	.....	1	Valve
3	1613 2357 00	•	.....	1	Spring
4	1612 2624 00	•	.....	1	Nipple
5	0661 1049 00	•	**1**	2	Gasket
6	1613 2359 00	•	.....	1	Piston
7	1614 3301 00	•	.....	1	Plug
8	0686 4204 00	•	.....	1	Plug
9	0661 1033 00	•	**1**.....	1	Gasket

1 Kit 2910 3009 00

1613 2355 82 02
22_044_1_1_1

Regulating valve **XA(S)**
Regelventiel
Regleringsventil
Regelventil
Soupape de régulation
Válvula de regulación
Valvola di regolazione



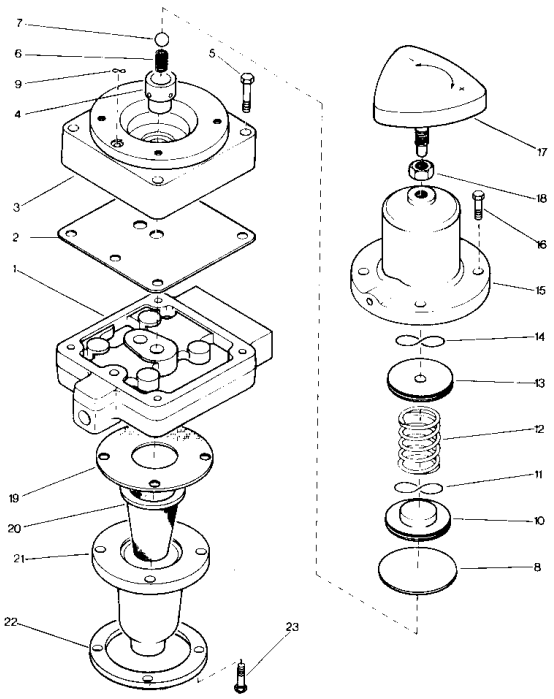
Ref.	A	B	C	D	Designation
-	**2252 0495 80**			1	**Regul. valve**
1	2252 0495 89	•		1	Base plate
2	2250 5843 00	•	1	1	Gasket
-	**2250 5844 81**	•		1	**Seat**
3	* * *	••		1	Housing
4	* * *	••		1	Ball cage
5	0147 1250 03	•		4	Bolt
6	2252 1427 00	•		1	Spring
7	0517 1420 00	•	1	1	Ball
8	2252 1135 00	•		1	Retainer
9	2250 5850 00	•	1	1	Membrane
10	2250 5849 00	•		1	Housing
11	2250 5848 00	•		1	Spacer
12	2250 5847 01	•	1	1	Membrane
13	2252 1136 00	•		1	Nut
14	0663 6112 00	•	1	1	O-ring
15	2250 5852 00	•		1	Guide

Ref.	A	B	C	D	Designation
16	0663 3132 00	•	1	1	O-ring
17	2252 1428 00	•		1	Spring
18	2250 5854 00	•		1	Seat
19	2250 5855 00	•		1	Cover
20	0144 3211 03	•		4	Bolt
21	2250 5856 02	•		1	Screw
22	0268 3205 00	•		1	Nut
23	2250 5842 00	•	1	1	Gasket
24	1012 0356 00	•	1	1	Filter
25	2250 5841 00	•		1	Housing
26	0147 1247 03	•		4	Bolt

1 Kit 2910 3012 00

2252 0495 80 03 / 2250 5844 81 01
24_002_1_1_3

Regulating valve
Regelventiel
Regleringsventil **XAH(S)**
Regelventil
Soupape de régulation
Válvula de regulación
Valvola di regolazion



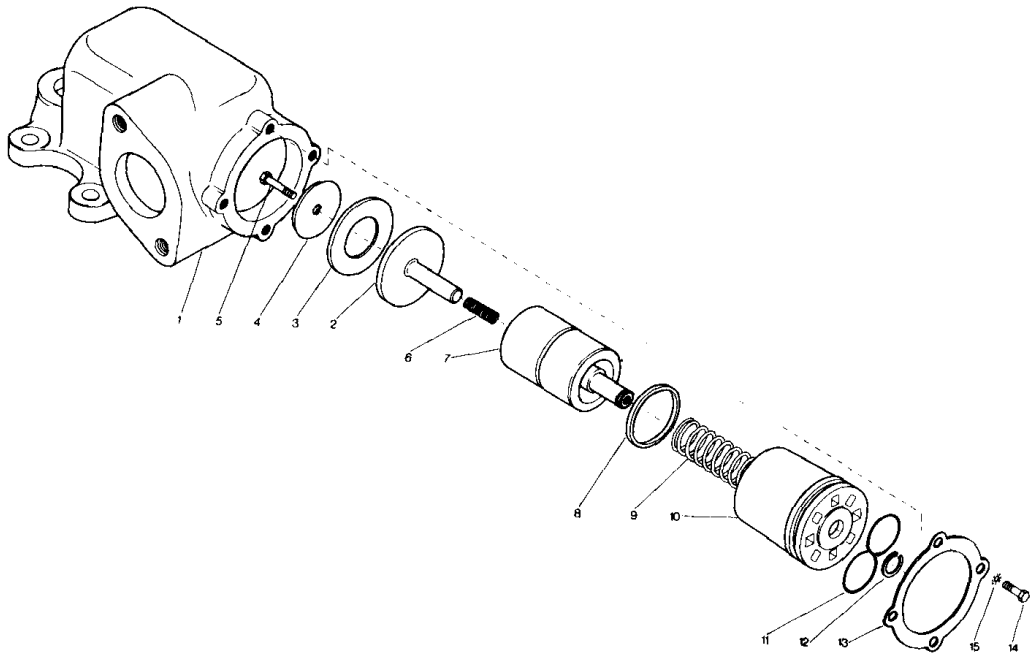
Ref.	A	B	C	D	Designation
-	**2252 0495 85**		.....	**1**	**Regul. valve**
1	2252 0495 89	•	.....	1	Base plate
2	2250 5843 00	•	1	1	Gasket
-	**2252 4055 80**	•	.....	**1**	**Seat**
3	* * *	••	.....	1	Housing
4	* * *	••	.....	1	Ball cage
5	0147 1250 03	•	.....	4	Bolt
6	2252 4197 00	•	.....	1	Spring
7	0517 1420 00	•	1	1	Ball
8	2252 4060 00	•	1	1	Membrane
9	0663 6112 00	•	1	1	O-ring
10	2252 4058 00	•	.....	1	Guide
11	0663 3132 00	•	1	1	O-ring
12	2252 1428 00	•	.....	1	Spring
13	2252 4059 00	•	.....	1	Seat
14	0663 3131 00	•	1	1	O-ring

Ref.	A	B	C	D	Designation
15	2252 4056 80	•	.....	1	Cover
16	0147 1247 03	•	.....	4	Bolt
17	2250 5856 02	•	.....	1	Screw
18	0268 3205 00	•	.....	1	Nut
19	2250 5842 00	•	1	1	Gasket
20	1012 0356 00	•	1	1	Filter
21	2250 5841 00	•	.....	1	Housing
22	2254 3391 00	•	.....	1	Ring
23	0147 1248 03	•	.....	4	Bolt

1 Kit 2910 3005 00

2252 0495 85 03 / 2252 4055 80 01
24_005_3_1_0

Minimum pressure valve
Minimumdrukventiel
Minimitryckventil
Mindestdruckventil
Soupape à minimum de pression
Válvula de presión mínima
Valvola di minima pressione



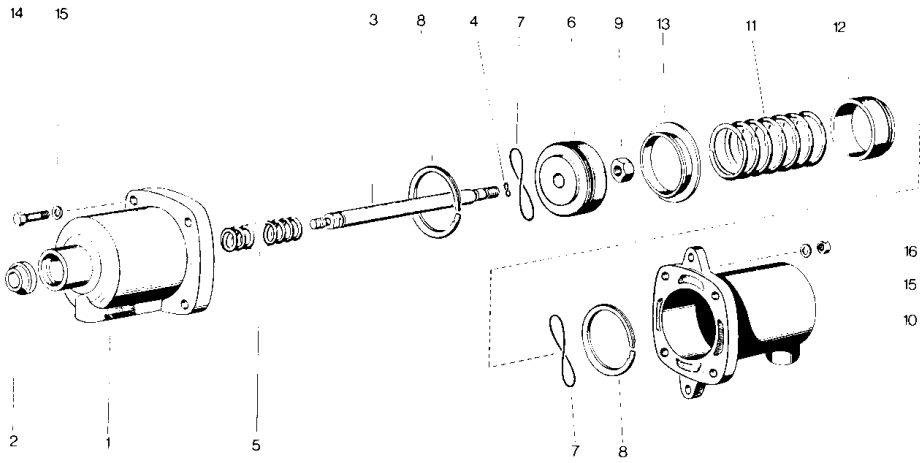
Ref.	A	B	C	D	Designation
-	**1613 3219 80**		.....	**1**	**Minimum pressure valve**
1	* * *	•	.....	1	Housing
2	1613 3221 00	•	.....	1	Valve
3	1613 3223 01	•	1	1	Washer
4	1613 3222 00	•	.....	1	Washer
5	0147 1244 03	•	.....	1	Bolt
6	1612 4049 00	•	.....	1	Spring
7	1613 3220 00	•	.....	1	Piston
8	1619 6928 00	•	1	1	Seal ring
9	1612 4048 00	•	.....	1	Spring
10	1613 2354 01	•	.....	1	Housing

Ref.	A	B	C	D	Designation
11	0663 7135 00	•	1.....	1	O-ring
12	0335 3111 00	•	.....	1	Circlip
13	1613 3263 00	•	.....	1	Cover
14	0147 1246 03	•	.....	4	Bolt
15	0333 3220 00	•	1.....	4	Lock washer

1 Kit 2910 3029 00

1613 3219 80 04
22_035_0_2_3

Speed regulator
Snelheidsregelaar
Varvtalsregulator
Drehzahlregler
Régulateur de vitesse
Regulador de velocidad
Regolatore di velocità

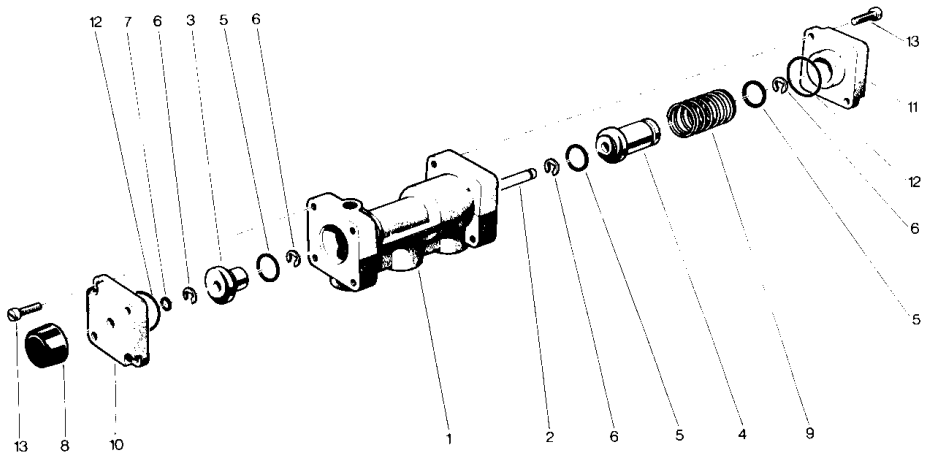


Ref.	A	B	C	D	Designation
-	**2252 0493 80**			1	**Speed regulator**
1	2250 5870 80	•		1	Housing
2	0665 9109 00	•	1	1	Seal ring
3	2250 5873 02	•		1	Piston rod
4	0663 7512 00	•	1	1	O-ring
5	2252 0489 00	•		1	Spring
6	2250 5874 00	•		1	Piston
7	0663 2131 00	•	1	2	O-ring
8	2250 5875 00	•	1	2	Piston ring
9	0266 2110 00	•		1	Nut
10	2252 0490 00	•		1	Cylinder
11	2252 0492 00	•		1	Spring
12	2252 0493 00	•		1	Piston
13	2252 0494 00	•		1	Ring
14	0147 1250 03	•		4	Bolt
15	0301 2321 00	•		8	Washer
16	0266 2108 00	•		4	Nut

1 Kit 2910 3006 00

2252 0493 80 01
23_000_0_0_6

Loading valve
Belastklep
Pålastningsventil
Ladeventil
Soupape de charge
Válvula de carga
Valvola di messa a carico



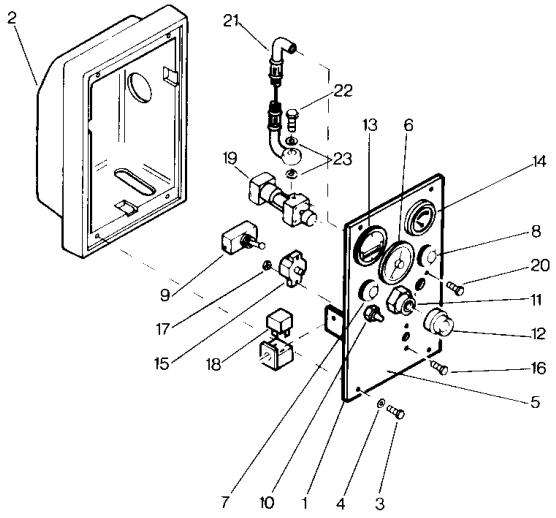
Ref.	A	B	C	D	Designation
-	**1613 2610 80**			1	**Loading valve**
1	* * *	•		1	Housing
2	1613 2610 00	•		1	Rod
3	1613 2612 00	•		1	Valve
4	1613 2613 00	•		1	Valve
5	0663 3116 00	•	1	3	O-ring
6	0335 3106 00	•		4	Circlip
7	0663 7110 00	•	1	1	O-ring
8	1613 2616 00	•		1	Button
9	1613 3889 00	•		1	Spring

Ref.	A	B	C	D	Designation
10	1613 2614 00	•		1	Cover
11	1613 2615 00	•		1	Cover
12	0663 7126 00	•	1	2	O-ring
13	0160 6060 00	•		4	Screw

1 Kit 2910 3007 00

1613 2610 80 02
22_017_0_0_6

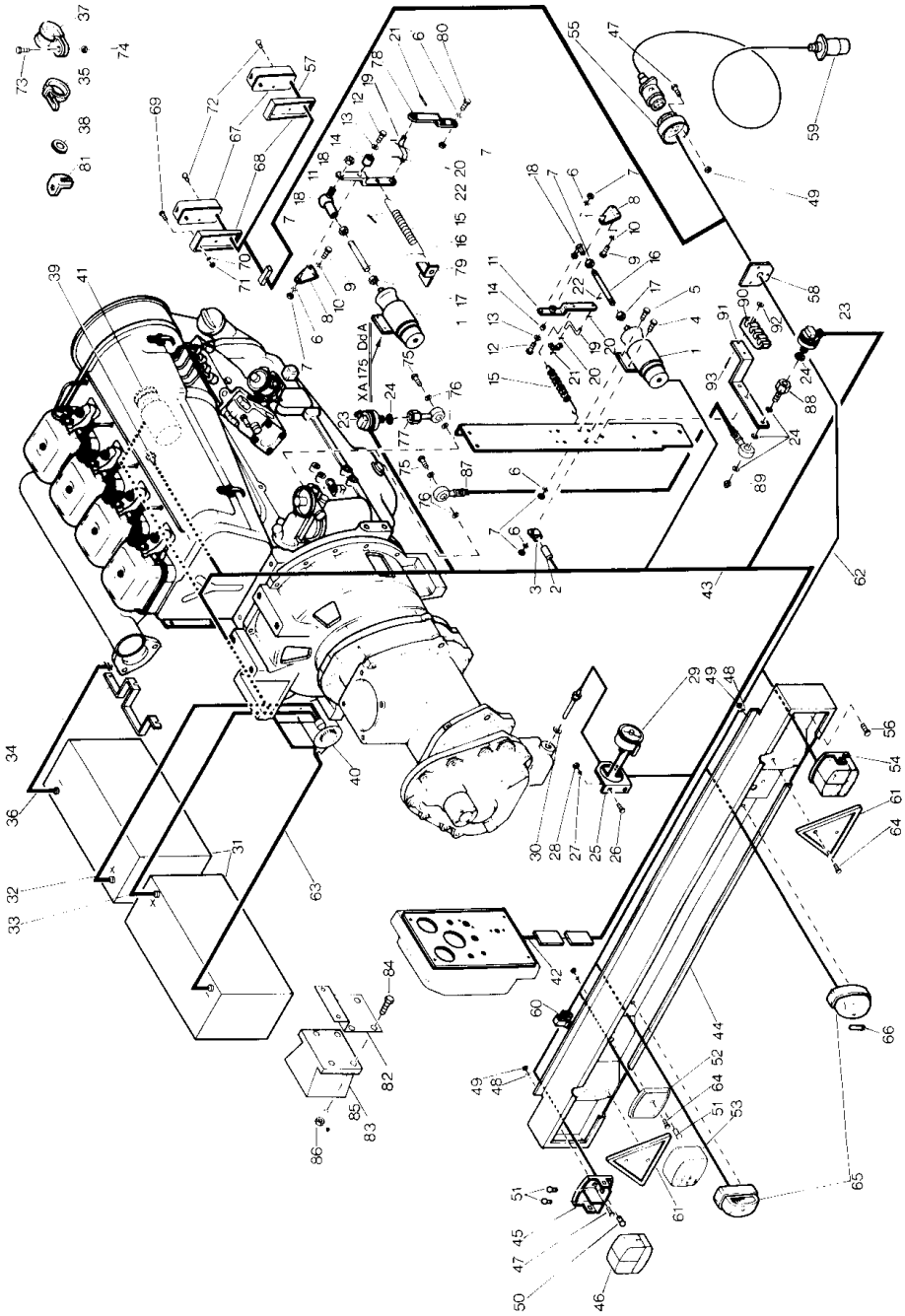
Control panel
Bedieningsbord
Manöverpanel
Armaturenbrett
Panneau de commande
Panel de control
Pannello di controllo



Ref.	A	B	C	D	Designation
1	1616 5071 00			1	Instrument panel
2	1614 4363 00			1	Cover
3	0147 1252 03			4	Bolt
4	0301 2321 00			4	Washer
5				1	Decal
	1079 9916 21				- English
	1079 9916 22				- Dutch
	1079 9916 23				- Swedish
	1079 9916 24				- German
	1616 5146 05				- French
	1079 9916 27				- Italian
6				1	Press. gauge
	1619 5086 00		An		- "
	1310 0154 00		As		- "
	1619 5268 00				- "
7	1089 0312 01			1	Lampholder
8	1089 0312 02			1	Lampholder
-	1091 0168 00			2	Lamp
9	1089 0262 02			1	Toggle switch
10	1619 2371 00			1	Shroud
11	1089 0356 02			1	Push button
12	1612 2386 00			1	Cap
13	1089 0352 01			1	Hourmeter
14	1619 7737 00			1	Fuel gauge
15	1089 0322 07			1	Fuse
16	0160 6063 00			2	Screw
17	0266 2107 00			2	Nut
18	1089 0341 01			3	Relay
19	- - -			1	Loading valve
20	0160 6062 00			2	Screw
21	1202 5374 00			1	Hose assembly
22	0627 5110 00			1	Press. screw
23	0653 1046 00		1	2	Gasket

1 Kit 2910 3007 00

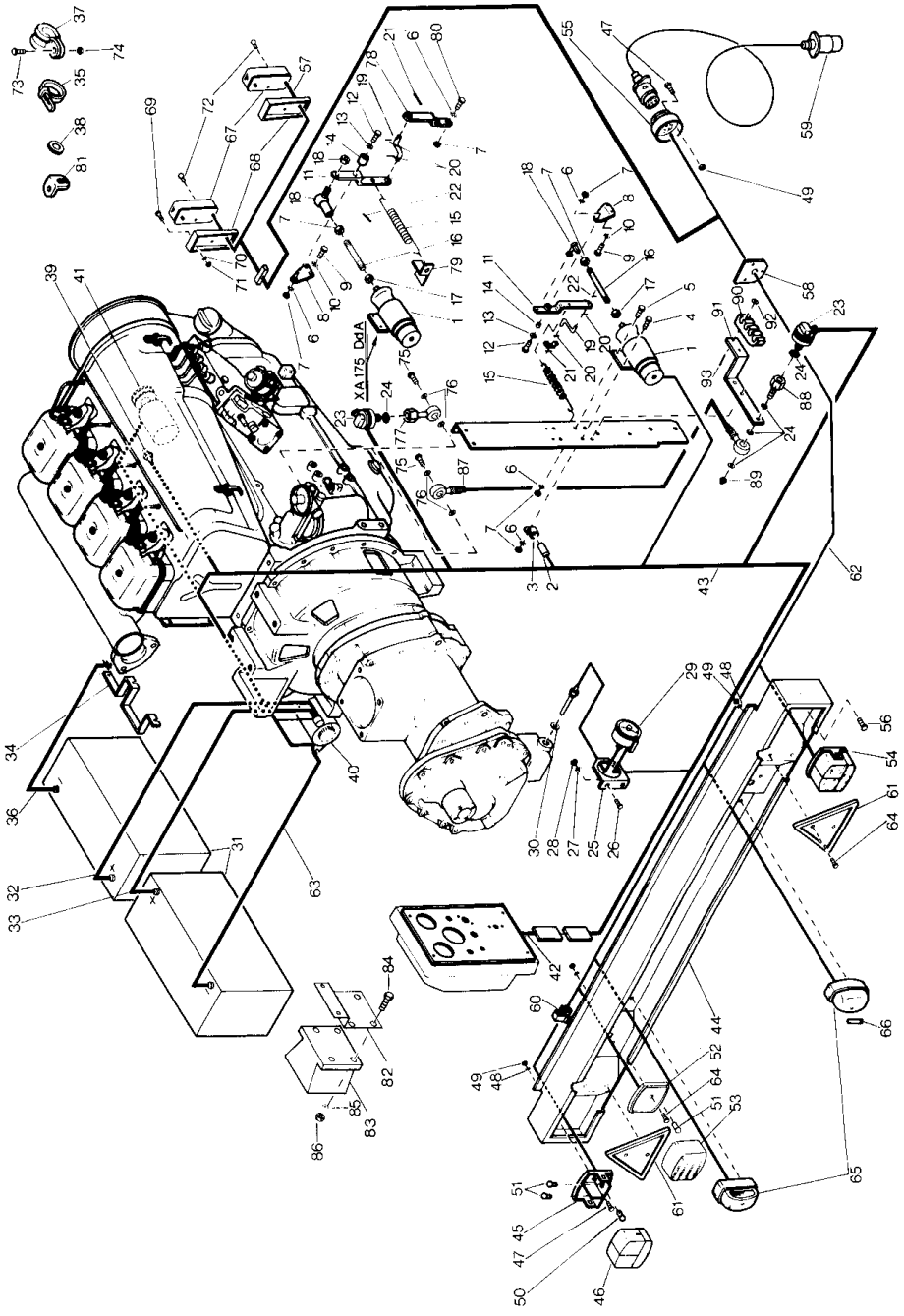
28_075_2_1_1


XA175 DdA

Electrical equipment
Elektrische apparatuur
Elutrustning
Elektrische Ausrüstung
Equipement électrique
Equipo eléctrico
Apparecchiatura elettrica

Ref.	A	B	C	D	Designation
1	1089 0353 01		.....	1	Solenoid
2	2253 7327 00		.....	1	Suppressor
3	0346 1008 09		.....	1	Clamp
4	0147 1249 03		.....	1	Bolt
5	0147 1247 03		.....	3	Bolt
6	0333 3220 00		.....	9	Lock washer
7	0266 2108 00		.....	10	Nut
8			.....	1	Bracket
	1616 2903 01		4)		- "
	1616 2903 00		.....		- "
9	0211 1244 00		.....	2	Cap screw
10	0333 3120 00		.....	2	Lock washer
11	1616 2904 00		.....	1	Lever
12	0147 1250 03		.....	1	Bolt
13	0301 2321 00		.....	1	Washer
14	0324 1104 00		.....	1	Spacer
15			.....	1	Spring
	1615 2549 00		.....		- XA(S)90DdA, XA(S)125
	1616 3346 00		.....		- XA(S)175, XA125DdA, XAH(S)125
	1614 2894 00		.....		- XA175DdA
16			.....	1	Link
	1613 1214 06		.....		- XA(S)90DdA, XA(S)125
	1613 1214 08		.....		- XA(S)175, XA125DdA, XA175DdA, XAH(S)125
17	0268 4105 01		.....	1	Nut
18	1619 1639 00		.....	1	Ball joint
19	1613 2628 00		.....	1	Link
20	0108 1149 00		.....	2	Elastic pin
21	0108 1145 00		.....	1	Elastic pin
22	0111 1231 00		.....	1	Split pin
23			.....	1	Press. switch
	1089 0311 05		.....		- XA(S)90DdA, XA(S)125
	1089 0311 06		.....		- XA(S)175, XA125DdA, XA175DdA, XAH(S)125
24			.....		Gasket
	0653 1046 00		3)4)5).....	3	- "
	0653 1062 00		.....	1	- "
25	2252 4045 00		.....	1	Support
26	0147 1322 03		.....	2	Bolt
27	0333 3227 00		.....	2	Lock washer
28	0266 2110 00		.....	2	Nut
29	1089 0376 01		.....	1	Temp. switch
30	0661 1033 00		**1**	1	Gasket
31			.....	2	Battery
	0926 5354 00		3)		- "
	0926 5093 00		.....		- "
32			.....	1	Cable
	1615 0866 19		3)		- "
	1615 0866 05		.....		- "

Ref.	A	B	C	D	Designation
33			.....	1	Cable
	1616 0866 01		.....		- XA(S)90DdA, XA(S)125, XA175
	1613 1302 06		.....		- XAS175, XAH(S)125, XA175DdA
	1615 0866 07		.....		- XA125DdA
34			.....	1	Support
	1616 3341 01		.....		- XA(S)90DdA, XA(S)125, XA125DdA
	1616 3341 02		.....		- XA(S)175, XA175DdA, XAH(S)125
35	1088 1301 02		.....	11	Cable ty
36	2250 2382 14		.....	1	Cable
37	1613 0804 02		2)	1	- Clamp
38			2)		Grommet
	1614 0132 04		.....	1	- Ø26/14
	0698 0156 00		.....	1	- Ø25/18
	0698 0150 00		.....	2	- Ø17/13
	0698 0153 00		.....	2	- Ø19/15
39	* * *		.....	1	Temp. switch
40	* * *		.....	1	Starter
41	* * *		.....	1	Alternator
42	1202 5231 00		.....	1	Wire harness
43			.....	1	Wire harness
	1202 5242 00		.....		- XA(S)90DdA, XA(S)125
	1202 5241 00		.....		- XA(S)175, XA175DdA
	1202 5371 00		.....		- XA125DdA
	1613 6345 00		1)		- XAH(S)125
	1202 5241 00		.....		- XAH(S)125
44	1616 4609 00		2)	1	- Bumper
x	**1619 5066 00**		**2) .....**	**1**	- **Box**
45	* * *	•	2)	1	- Base plate
46	* * *	•	2)	1	- Lens
47	0160 6066 00		2)	5	- Screw
48	0333 3215 00		2)	10	- Lock washer
49	0266 2107 00		2)	13	- Nut
50	1089 0364 01		2)	2	- Bulb
51	1089 0365 01		2)	5	- Bulb
x	**1619 6632 00**		**2) .....**	**1**	- **Foglamp**
52	* * *	•	2)	1	- Base plate
53	* * *	•	2)	1	- Lens
54	1619 5066 01		2)	1	- Box
55	1089 0291 02		2)	1	- Socket
56	1619 2766 00		2)	4	- Bolt
57	1612 3989 01		2)	2	- Wire harness
58	1616 4507 00		2)	1	- Plate
59	1616 0864 00		2)	1	- Cable
60			2)		Clamp
	1088 0830 09		.....	2	- Ø6/7
	1088 0830 10		.....	9	- Ø10/11
61	1619 6677 00		2)	2	- Reflector
62			2)	1	Wire harness
	1615 4423 00		.....		- XA(S)125, XA175
	1616 4875 00		.....		- XAS175, XAH(S)125


XA175 D/A

Electrical equipment
Elektrische apparatuur
Elutrustning
Elektrische Ausrüstung
Equipement électrique
Equipo eléctrico
Apparecchiatura elettrica

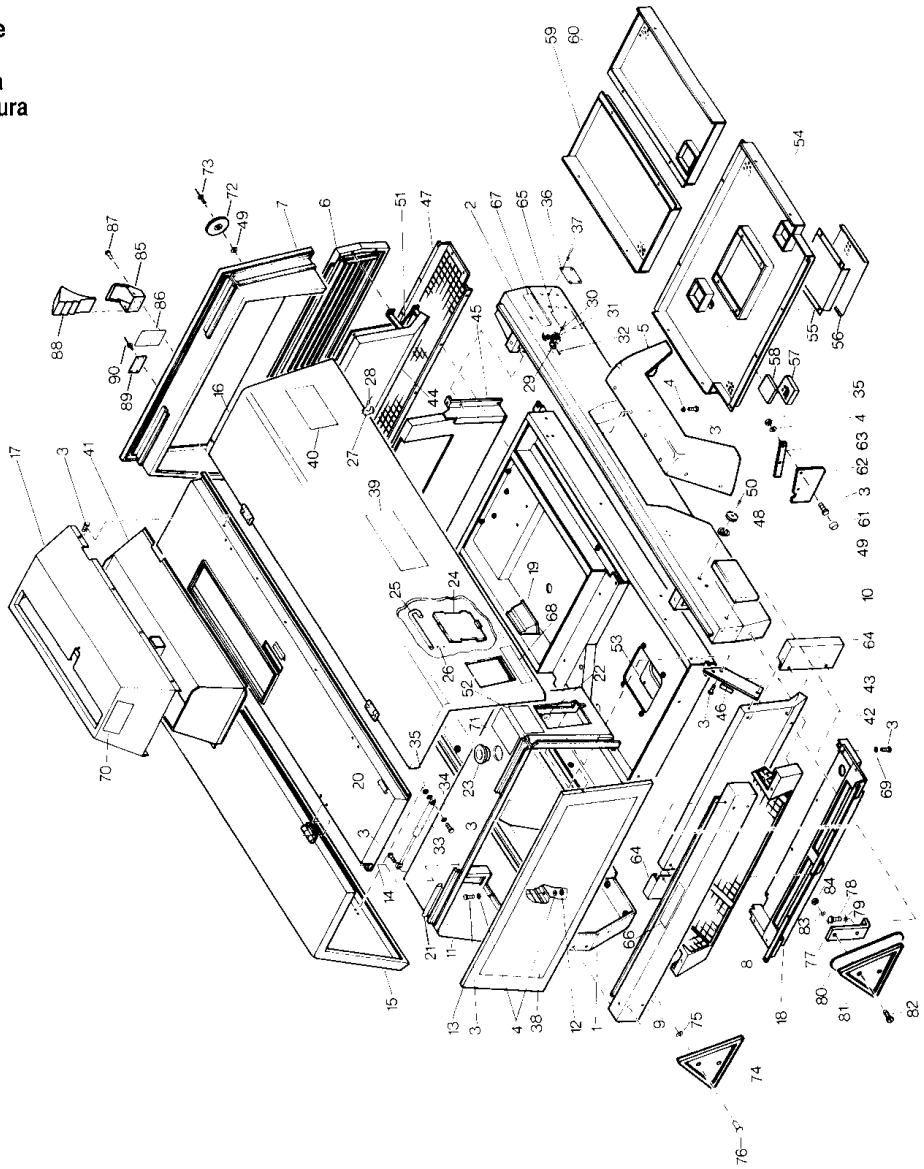
Ref.	A	B	C	D	Designation
63	1615 0866 01		.....	1	Cable
64	0160 6062 00		2)	8	- Screw
65	1619 5336 00		2)	2	- Light
66	1091 0361 00		2)	2	- Bulb
67	1619 7216 00		2)	2	- Light
68	1616 4608 00		2)	2	- Spacer
69	0160 6054 00		2)	4	- Screw
70	0333 3214 00		2)	4	- Lock washer
71	0266 2106 00		2)	4	- Nut
72	1089 9108 06		2)	2	- Bulb
73	0147 1246 03		2)	1	- Bolt
74	0266 2108 00		2)	1	- Nut
75	0627 4205 03		.....	1	Press. screw
76	0653 1046 00		.....	2	Gasket
77	1612 2979 00		.....	1	Coupling
78	1616 3459 00		4)	1	- Lever
79	1616 3463 00		4)	1	- Bracket
80	0147 1244 03		4)	4	- Bolt
81	1613 0809 00		4)	1	- Bracket
82	1616 4200 00		3)	1	- Support
83	1089 0435 01		3)	1	- Switch
84	0147 1325 03		3)	4	- Bolt
85	0333 3227 00		3)	4	- Lock washer
86	0266 2110 00		3)	4	- Nut
87	1616 2742 00		3)4)5).....	1	- Hose assembly
88	1613 2469 00		3)4)5).....	1	- Nipple
89	0277 1111 00		3)4)5).....	1	- Cap nut
x			.....	**1**	**Clamping**
	1614 4686 00		**3)4)5)**.....		**- "**
	1614 3716 80		.....		**- "**
90	1613 2684 00	•	.....	1	Support
91		•	.....	1	Bracket
	1614 4572 00		3)4)5).....		- "
	1614 3716 00		.....		- "
92	0301 2318 00	•	.....	2	Washer
93	0129 3177 00	•	.....	2	Rivet

1 **Kit 2910 4046 00**

1) With aftercooler / Met nakoeler / Med efterkylare / Mit Nachkühler / Avec refroidisseur final / Con refrigerador posterior / Con refrigeratore finale
2) Road signalisation / Signalisatie / Signalanordning / Signalvorrichtung / Signalisation / Señalización / Segnalazione per traino su strada ordinaria
3) XA125DdA
4) XA175DdA
5) South Afrika

31_079_2_0_0

Bodywork
Karrosserie
Karosseri
Karosserie
Capotage
Carrocería
Cappottatura

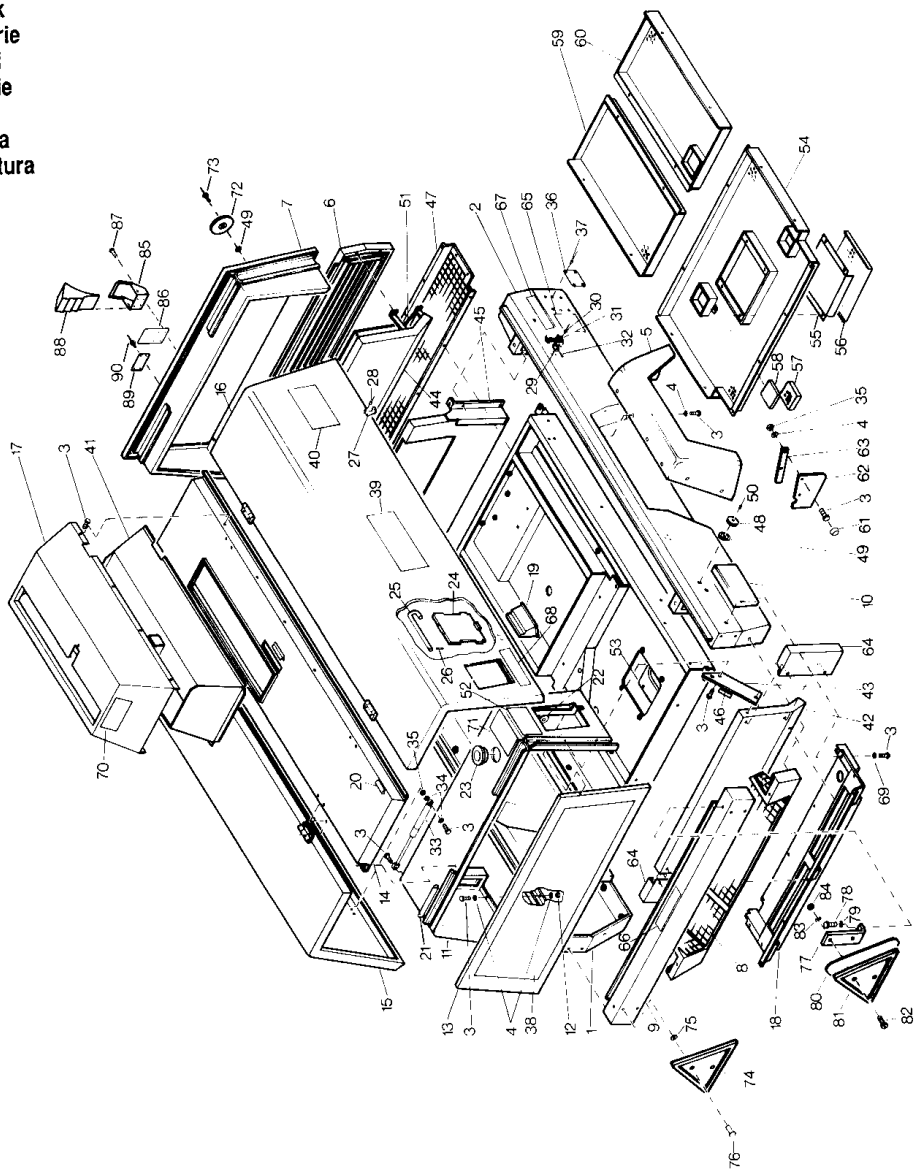


Ref.	A	B	C	D	Designation
1			.....	1	Side panel
	1615 4271 00		2)		- XA(S)90DdA, XA(S)125
	1616 4464 00		2)		- XA125DdA, XAH(S)125, XAS175, XA175DdA
	1616 4623 00		.....		- XA175
	1616 4842 00		2)		- XA(S)125-Skid, XA175-Skid
	1615 4375 00		2)		- XAS175-Skid, XA125DdA-Skid,
			.....		- XAH(S)125Dd-Skid, XA175DdA-Skid

Ref.	A	B	C	D	Designation
2				1	Side panel
	1615 4272 00		2)		- XA(S)90DdA, XA(S)125
	1616 4470 00		2)		- XA125DdA, XAH(S)125, XAS175, XA175DdA
	1616 4626 00				- XA175
	1616 4843 00		2)		- XA(S)125-Skid, XA175-Skid
	1615 4376 00		2)		- XAS175-Skid, XA125DdA-Skid,
					- XAH(S)125Dd-Skid, XA175DdA-Skid
3				AR	Bolt
	0226 0301 00				- M8 x 16
	1619 2766 00				- M8 x 20
	0147 1324 03				- M8 x 22
	1619 5337 01				- M8 x 30
	0147 1331 03				- M8 x 55
	0147 1332 03				- M8 x 60
	0147 1340 03				- M8 x 100
4				AR	Washer
	0300 8005 00				- 9/25 x 1.5
	0301 2335 00				- 8.4/16 x 1.6
5	1614 4282 00			2	Mudguard
6	1616 4475 00		2)	1	Panel, front
7				1	Panel, front
	1202 9900 00		1)2)7)		- "
	1616 4503 00		1)2)		- "
8	1616 4480 00			1	Panel, lower
9				1	Bumper
	1202 9694 00		3)9)		- "
	1616 4609 00		3)		- "
	1616 4481 00				- "
10	1614 4262 00			2	Bumper
11				1	Panel, rear
	1616 4630 00		2)		- XA(S)90DdA, XA(S)125, XA175
	1616 4493 00		2)		- XAS175, XAH(S)125, XA125DdA, XA175DdA
12	0266 2110 00			AR	Nut
13	1616 4512 00		2)	1	Cover
14				1	Roof
	1202 9713 00		2)		- XA(S)90DdA, XA(S)125
	1616 4515 00		2)		- XA125DdA, XAH(S)125, XAS175, XA175DdA
	1616 4631 00				- XA175
15				1	Door
	1616 4636 00		2)		- XA(S)90DdA, XA(S)125, XA175
	1616 4528 00		2)		- XAS175, XAH(S)125, XA125DdA, XA175DdA
16				1	Door
	1616 4637 00		2)		- XA(S)90DdA, XA(S)125, XA175
	1616 4530 00		2)		- XAS175, XAH(S)125, XA125DdA, XA175DdA

Ref.	A	B	C	D	Designation
17				1	Duct
	1613 5602 00				- XA90DdA, XA125
	1202 9726 00		4)		- XAS90DdA, XAS125
	1616 4632 00				- XA175, XA125DdA, XAH125
	1616 4519 00		4)		- XAS175, XAHS125
	1616 4856 00				- XA175DdA
18				1	Bottom plate
	1616 4629 00				- XA(S)90DdA, XA(S)125, XA175
	1616 4483 00				- XAS175, XAH(S)125, XA125DdA, XA175DdA
	1616 4920 00				- XAHS125-Aftercooled
19	1614 4378 00			4	Handgrip
20	1619 2665 00			AR	Seal
21	1503 1056 00			AR	Seal
22	1614 4607 00			1	Plug
23	2250 9794 00			1	Plug
24	1614 4364 00			1	Door
25	1614 4362 00			1	Pin
26	0108 1149 00			1	Elastic pin
27	1613 2666 00			4	Stirrup
28	0129 3172 01			8	Pop rivet
29	1619 2980 01			4	Base plate
30	0129 3174 01			12	Pop rivet
31	1619 2978 01			4	Catch
32	1619 2981 01			4	Pin
33	1619 7190 00			2	Gas spring
34	0324 1181 00			4	Spacer
35	0291 1110 00			AR	Lock nut
-	1619 1200 00			2	Padlock hook
36				1	Data plate
	1614 4694 00				- EEC-English
	1614 4694 01				- EEC-French
	1614 4694 02				- EEC-German
	1614 4695 00				- Not EEC
37	0129 3103 00			4	Pop rivet
38	1616 4603 00			2	Decal
39				2	Decal
	2254 0854 30				- XA90DdA
	2254 0854 31				- XAS90DdA
	2254 0854 23				- XA125Dd(A)
	2254 0854 22				- XAS125
	2254 0854 21				- XA175
	2254 0854 20				- XAS175
	2254 0854 25				- XAHS125
	2254 0854 24				- XAH125
40	0690 1132 00			2	Decal
41				1	Baffle
	1202 9728 00				- XAS90DdA, XAS125
	1616 4522 00				- XAS175, XAHS125
42				1	Baffle
	1616 4501 00		2)		- XAS175, XAHS125
	1615 4380 00		2)		- XAS90DdA, XAS125
	1616 4922 00		2)		- XAS175, XAHS125-Aftercooled
43				2	Bracket
	1615 4348 00				- XAS90DdA, XAS125
	1616 4502 00				- XAS175, XAHS125

Bodywork
Karrosserie
Karosseri
Karosserie
Capotage
Carrocería
Cappottatura



Ref.	A	B	C	D	Designation
44			.....	1	Baffle
	1615 4346 00		2)		- XAS90DdA, XAS125
	1616 4505 00		1)		- XAS175, XAHS125
45			.....	1	Baffle
	1615 4276 00		2)		- XAS90DdA, XAS125
	1616 4560 00		2)		- XAS175, XAHS125
	1616 4868 00		2)		- XAS175-South Afrika

Ref.	A	B	C	D	Designation
46	1619 2758 00		.....	AR	Seal
47			.....	1	Bottom plate
	1615 4290 00		.....		- XA(S)90DdA, XA(S)125
	1616 4479 00		.....		- XA175, XAH125
	1616 4478 00		.....		- XAS175, XAHS125, XA125DdA, XA175DdA
48	1619 6634 01		3)	4	- Reflector

Ref.	A	B	C	D	Designation
49	1614 4622 00		3)	6	- Spacer
50	0129 3110 00		3)	6	- Pop rivet
51	1616 4449 00			1	Plate
					- XAS175,XAHS125
52				2	Label
	1079 9906 01				- English
	1079 9906 02				- Dutch
	1079 9906 03				- Swedish
	1079 9906 04				- German
	1614 5063 00				- French
	1079 9906 06				- Spanish
	1079 9906 07				- Italian
53	1616 4457 00			1	Bottom plate
54				1	Bottom plate
	1616 4793 00		8)		- XAS90DdA, XAS125
	1616 4792 00		8)		- XAS175, XAHS125
55	1202 8551 00		5)	1	Cover
					- XAS90DdA, XAS125, XAS175, XAHS125
56	1202 8552 00			1	Baffle
					- XAS90DdA, XAS125, XAS175, XAHS125
57					Baffle
	1202 8591 00			2	- XAS90DdA, XAS125
	1202 8591 00			3	- XAS175, XAHS125
58					Cover
	1616 4801 00		5)	2	- XAS90DdA, XAS125
	1616 4801 00		5)	3	- XAS175, XAHS125
59	1616 4795 00		8)	1	Bottom plate
					- XAS175, XAHS125
60	1616 4796 00		8)	1	Bottom plate
					- XAS175, XAHS125
61	1613 3672 00		6)	4	- Cap
62	1616 4898 00		6)	4	- Flap
63	1616 4899 00		6)	4	- Strip
64	1616 4832 00		2)	2	Baffle
					- XAS
65				1	Label
	1613 5402 01				- XAS125
	1613 5402 03				- XAS175
	1613 5397 00				- XA(H)S125-AUS,XAS175-AUS
66				1	Label
	2253 5108 00				- English
	1079 9902 92				- Dutch
	1079 9902 93				- Swedish
	2253 5108 04				- German
	2253 5108 05				- French
	1079 9902 96				- Spanish
	1079 9902 97				- Italian
67	1613 3384 00			2	Decal
					- USA
68	1613 3385 00			1	Decal
					- USA
69	0300 8019 00			4	Washer
70	1079 9902 10			1	Label
71				1	Label
	2920 1014 10				- English
	2921 1014 10				- Dutch
	2922 1014 10				- French
	2923 1014 10				- German
	2924 1014 10				- Spanish
	2925 1014 10				- Swedish
	2926 1014 10				- Italian
72	1619 6634 00		3)	2	- Reflector
73	0129 3149 01		3)	4	- Pop rivet
74	1619 6677 00		3)	2	- Reflector
75	1614 4622 00		3)	2	- Spacer
76	0129 3118 00		3)	2	- Pop rivet
77	1612 2873 00		3)9)	2	- Bracket
78	0147 1244 03		3)9)	4	- Bolt
79	0333 3220 00		3)9)	4	- Lock washer
80	1202 9666 00		3)9)	2	- Plate
81	1619 6677 00		3)9)	2	- Reflector
82	0160 6062 00		3)9)	4	- Screw
83	0333 3215 00		3)9)	4	- Lock washer
84	0266 2107 00		3)9)	4	- Nut
85	1202 9354 00		(T)	2	- Bracket
86	1202 9537 00		(T)	2	- Plate
87	0129 3270 15		(T)	8	- Pop rivet
88	1202 9353 00		(T)	2	- Wheel chocks
89	1202 9523 00		(T)	1	- Instruction plate
90	0129 3104 00		(T)	2	- Pop rivet

1) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma/ Da rivestira con plastica espansa
1619 6138 00(AR)

2) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma/ Da rivestira con plastica espansa
1619 6138 01(AR) only for XA(H)S

3) Road signalisation / Signalisatie / Signalanordning / Signalvorrichtung / Signalisation / Señalización / Segnalazione per traino su strada ordinaria

4) To be lined with mineral wool / Te bekleden met rotswol / Skall kläs med mineralull / Auskleiden mit Rockwool / A garnir avec de la laine minérale / Revestir de lana mineral / Da rivestire con lana minerale
1619 2112 00(AR)

5) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma/ Da rivestira con plastica espansa
1619 2114 00(AR)

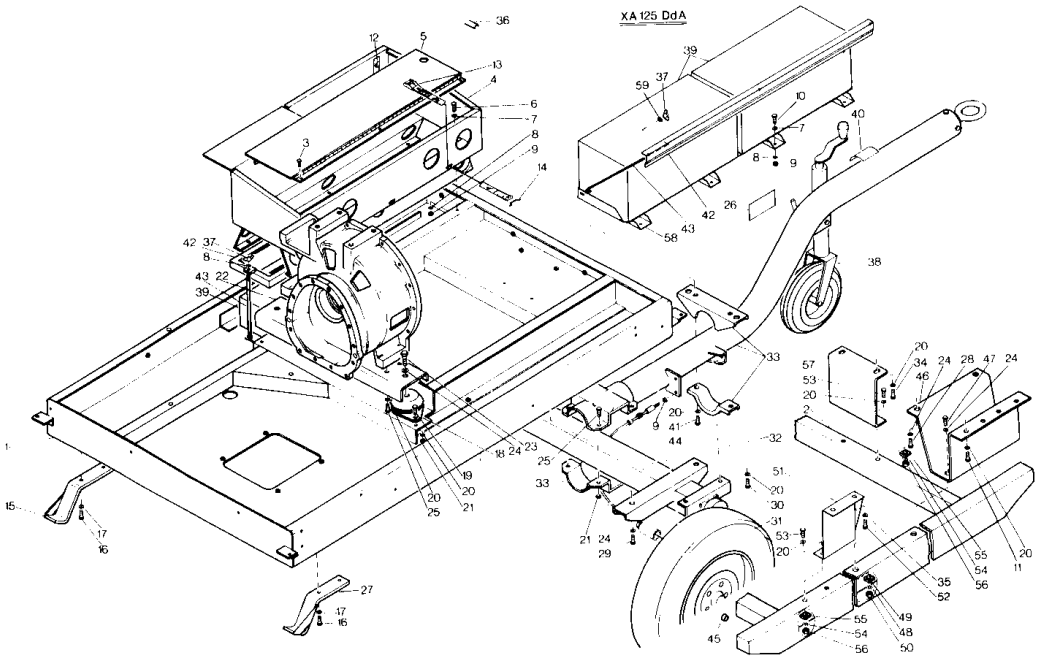
6) For the Netherlands / Voor Nederland / För Holland / Für die Niederlande / Pour la Hollande / Para Holanda / Per l'Olanda

7) Only for XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Enkel voor XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Endast för XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Nur für XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Seulement pour XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Unicamente para XA(H)S125 AUT-DEU, XAS175 AUT-DEU / Solo per XA(H)S125 AUT-DEU, XAS175 AUT-DEU

8) To be lined with foam plastic / Te bekleden met schuimrubber / Skall kläs med skumplast / Auskleiden mit Schaumgummi / A garnir avec du caoutchouc mousse / Revestir de goma espuma/ Da rivestira con plastica espansa
1619 2114 03(AR)

9) Great Britain / Gr. Bittannië / Storbritannien / Großbritannien la Grande Bretagne / la Gran Bretaña / Gran Bretagna

40_187_2_0_0


XA 125 DdA

Frame and mountings
Frame en opbouwonderdelen
Ram och fästen
Rahmen und Montagekomponenten
Châssis et superstructure
Bastidor y piezas de montaje
Telaio e supporti

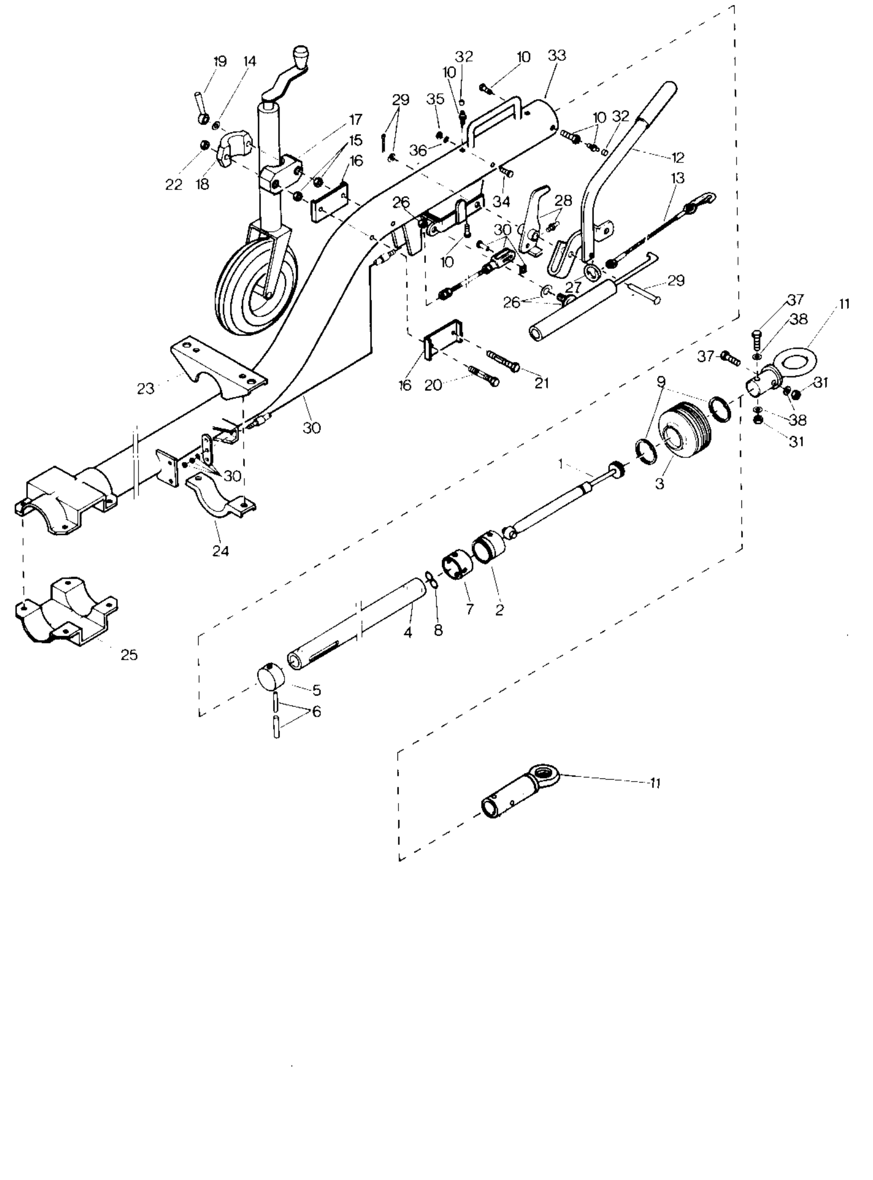
Ref.	A	B	C	D	Designation
1				1	Frame
	1613 6272 00				- XA(S)90DdA, XA(S)125
	1613 6498 00				- XA175
	1613 6271 00				- XAS175, XA175DdA, XAH(S)125, XA125DdA
2				1	Skid
	1616 4844 00		1)		- XA(S)125, XA175
	1615 4371 00		1)		- XAS175, XA175DdA, XAH(S)125
3	1619 2766 00			7	Bolt
4				1	Toolbox
	1616 4670 00				- XA(S)90DdA, XA(S)125, XA175
	1616 4558 00				- XAS175, XA175DdA, XAH(S)125
5				1	Cover
	1616 4638 00				- XA(S)90DdA, XA(S)125, XA175
	1616 4556 00				- XAS175, XA175DdA, XAH(S)125
6	0147 1322 03			AR	Bolt
7	0301 2335 00			AR	Washer
8	0333 3227 00			AR	Lock washer
9	0266 2110 00			AR	Nut
10	0147 1323 03		2)	8	Bolt
11	0147 1400 15		1)	4	Bolt
12	1616 4615 00			3	Stretcher
13	1616 4614 00			3	Stretcher
14	1616 4613 00			6	Retainer
15				1	Bracket
	1615 4809 00		3)4)		- "
	1616 4458 00		5)		- "
16	0147 1362 03			4	Bolt
17	1613 2346 00			4	Washer
18	1619 3728 00			2	Rubber pad
19	0147 1400 03			4	Bolt
20	0301 2358 00			AR	Washer
21	0291 1112 00			8	Lock nut
22	1613 6274 00			1	Support
23	0147 1474 03			2	Bolt
24	0301 2378 00			AR	Washer
25	0147 1401 03			8	Bolt
26	1202 5432 00			1	Label
27				1	Bracket
	1615 4809 00		3)4)		- "
	1202 7695 00		5)		- "
28	0147 1475 15		1)	4	- Bolt
29	0147 1475 15			4	Bolt
30	0147 1400 15			4	Bolt
31				2	Disc wheel
	1616 2253 00				- XA(H)
	1616 4461 00				- XA(H)S

Ref.	A	B	C	D	Designation
x				2	Tyre
	0538 0489 00				- XA(H)
	0538 0400 06				- XA(H)S
x				2	Inner tube
	0538 3268 00				- XA(H)
	0538 3200 05				- XA(H)S
32	- - -			1	Axle
33	- - -			1	Towbar
34	0147 1413 03		1)	2	- Bolt
35	0301 2344 00		1)	4	- Washer
36	1619 2795 00			AR	Seal
37					Wing nut
	0296 1108 02		2)	3	- "
	0296 1110 02			4	- "
38	1619 7301 00			1	Wheel
39	- - -			2	Battery
40	1079 9902 00			1	Decal
41				2	Bolt
	0147 1412 15		3)		- "
	0147 1413 15				- "
42	1616 4554 00			2	Battery frame
-	2254 0691 00		2)	1	- Battery clamp
43					Stud
	2253 9490 04		2)	3	- "
	1614 2246 03			4	- "
44	1615 4778 01			2	Brake cable
45	1202 9378 00		(T)	4	- Cap
46	1615 4372 00		1)	2	- Support
47	0147 1477 03		1)	4	- Bolt
48	0333 3244 00		1)	4	- Lock washer
49	0306 3111 00		1)	4	- Conical washer
50	0266 2114 00		1)	4	- Nut
51	1615 4374 00		1)	2	- Support
52	0147 1362 15		1)	4	- Bolt
53	0147 1402 03		1)	6	- Bolt
54	0333 3237 00		1)	6	- Lock washer
55	0306 3107 00		1)	6	- Conical washer
56	0266 2112 00		1)	6	- Nut
57	1615 4373 00		1)	1	- Support
58	1615 4377 00		2)	1	- Battery saddle
59	0301 2321 00		2)	3	- Washer

1) Skid-frame version / Uitvoering met balkframe / Utförande med balkram / Ausführung mit Kufenrahmen / Exécution avec châssis-skid / Versión con bastidor / Versione con telaio a slitta
2) XA125DdA
3) Only for the Netherlands / Alléén voor Nederland / Endast för Holland / Nur für die Niederlande / Seulement pour la Hollande / Solamente para Holanda / Solo per l'Olanda
4) XAS90 DdA, XAS125 Dd, XAH(S)125 Dd, XAS175 Dd
5) XA90 DdA, XA125 Dd, XA125 DdA, XA175 Dd, XA175 DdA

34_066_3_0_0

0006046B (1648x2323x2 tiff)



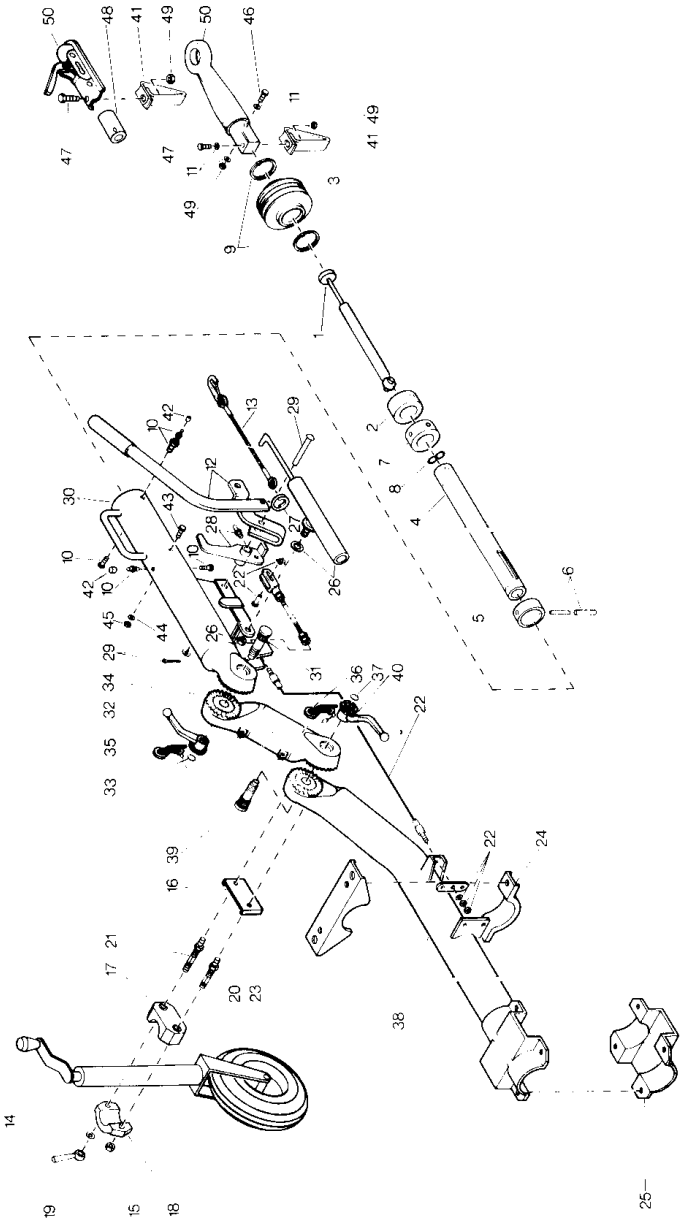
36_071_1

Non-adjustable towbar - with brakes
Niet regelbare trekstang - met remmen
Ej justerbar dragstång - med bromsar
Nicht einstellbare Deichsel - mit Bremsen
Timon non réglable - avec freins
Barra de tracción no ajustable - con frenos
Barra di traino non regolabile - con freni

Ref.	A	B	C	D	Designation
-			.....	1	**Towbar**
	1202 9364 82		1)		**- A.C.**
	1202 9364 83		1)		**- NATO**
	1202 9366 82		1)		**- Swivel A.C.(Great Britain)**
	1202 9365 82		2)		**- A.C.**
	1202 9365 83		2)		**- NATO**
	1202 9367 82		2)		**- Swivel A.C.(Great Britain)**
1	1202 9249 00	•	.....	1	Shock absorber
2	1202 9259 00	•	.....	1	Bush
3	2900 0448 00	•	.....	1	Bellows
4		•	.....	1	Bush
	1202 9244 00		.....		- A.C., NATO
	1202 9245 00		.....		- Swivel A.C.(Great Britain)
5	1202 9246 00	•	.....	1	Ring
6	2900 0710 00	•	.....	1	Elastic pin
7	1202 9260 00	•	.....	1	Bush
8	1202 9251 00	•	.....	1	O-ring
9	1088 1301 03	•	.....	2	Cable ty
10	2900 0714 00	•	.....	2	Grease nipple
11		•	.....	1	Towing eye
	1614 4368 00		.....		- A.C
	1614 4678 00		.....		- NATO
12	2900 1136 00	•	.....	1	Lever
13	2900 0814 00	•	.....	1	Cable
-	**1619 7325 00**	•	.....	**1**	**Clamp**
14	0301 2378 00	••	.....	1	Washer
15	0266 1114 00	••	.....	2	Nut
16	2900 0820 00	••	.....	2	Locking plate
17	2900 0818 00	••	.....	1	Clamp
18	2900 0819 00	••	.....	1	Clamp
19	2900 0744 00	••	.....	1	Handle
20	2900 0934 00	••	.....	1	Bolt
21	2900 0935 00	••	.....	1	Bolt
22	0291 1114 00	••	.....	1	Lock nut
23	1202 8958 00	•	.....	1	Clamp
24	1202 8999 00	•	.....	1	Clamp
25	1202 8955 00	•	.....	1	Clamp
26	2900 1137 00	•	.....	1	Spring
27	2900 0424 00	•	.....	1	Ring
28	2914 2001 00	•	.....	1	Lever
29	2900 0931 00	•	.....	1	Pin
30		•	.....	1	Brake cable
	2914 2002 00		1)		- "
	2914 2004 00		2)		- "
31	0291 1112 00	•	.....	2	Lock nut
32	2900 0850 00	•	.....	2	Cap
33		•	.....	1	Housing
	2914 2000 00		1)		- "
	2914 2003 00		2)		- "
34	1202 9248 00	•	.....	1	Bolt
35	0291 1111 00	•	.....	1	Lock nut
36	0301 2344 00	•	.....	1	Washer
37	1202 9844 02	•	.....	2	Bolt
38	1202 9845 00	•	.....	4	Washer

1) XA(S)90DdA, XA(S)125, XA175
2) XAS175, XAH(S)125, XA125DdA, XA175DdA

36_071_1_2_0



Adjustable towbar - with brakes
Regelbare trekstang - met remmen
Justerbar dragstång - med bromsar
Einstellbare Deichsel - mit Bremsen
Timon réglable - avec freins
Barra de tracción ajustable - con frenos
Barra di traino regolabile, con freni

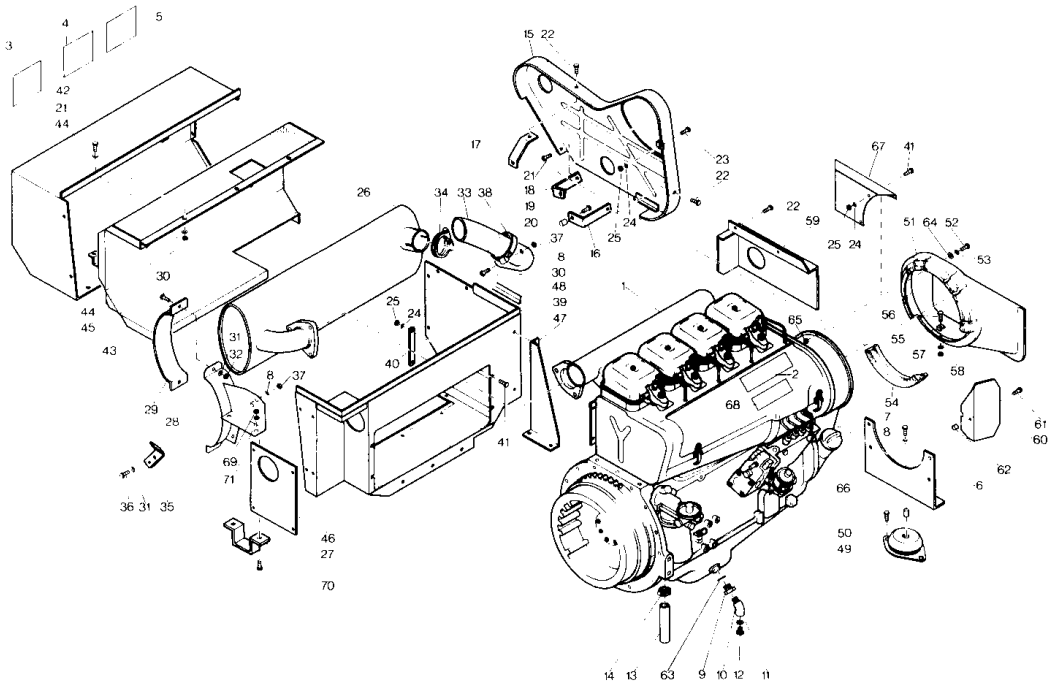
Ref.	A	B	C	D	Designation
-			.....	1	**Towbar**
	1202 9360 81		1)		**- DIN**
	1202 9360 82		1)		**- A.C.**
	1202 9363 80		1)		**- Ball coupling (Dutch version)**
	1202 9361 81		2)		**- DIN**
	1202 9361 82		2)		**- A.C.**
	1202 9362 80		2)		**- Ball coupling (Dutch version)**
1	1202 9249 00	•	.....	1	Shock absorber
2	1202 9257 00	•	.....	1	Bush
3	2900 0448 00	•	.....	1	Bellows
4	1202 9244 00	•	.....	1	Bush
5	1202 9246 00	•	.....	1	Ring
6	2900 0710 00	•	.....	1	Elastic pin
7	1202 9258 00	•	.....	1	Bush
8	1202 9251 00	•	.....	1	O-ring
9	1088 1301 03	•	.....	2	Cable ty
10	2900 0714 00	•	.....	2	Grease nipple
11	1202 9845 00	•	.....	3	Washer
			.....		- DIN, A.C.
12	2900 1136 00	•	.....	1	Lever
13	2900 0814 00	•	.....	1	Cable
-	**1619 7326 00**	•	.....	1	**Clamp**
14	0301 2378 00	••	.....	1	Washer
15	0291 1114 00	••	.....	1	Lock nut
16	2900 0820 00	••	.....	1	Plate
17	2900 0827 00	••	.....	1	Clamp
18	2900 0819 00	••	.....	1	Clamp
19	2900 0744 00	••	.....	1	Handle
20	2900 0828 00	••	.....	1	Bolt
21	2900 0829 00	••	.....	1	Bolt
22		•	.....	1	Brake cable
	2914 2008 00		1)		- "
	2914 2009 00		2)		- "
23	1202 8998 00	•	.....	1	Clamp
24	1202 8999 00	•	.....	1	Clamp
25	1202 8955 00	•	.....	1	Clamp
26	2900 1137 00	•	.....	1	Spring
27	2900 0424 00	•	.....	1	Ring
28	2914 2007 00	•	.....	1	Lever
29	2900 0816 00	•	.....	1	Pin

Ref.	A	B	C	D	Designation
30	**2914 2005 00**	•	.....	1	**Housing**
31	2900 0833 00	••	.....	1	Bolt
32	2900 0834 00	••	.....	1	Handle
33	2900 0841 00	•	.....	1	Ring
34	**2900 0721 00**	•	.....	1	**Rod**
35	2900 0836 00	••	.....	1	Clip
36	2900 0837 00	••	.....	1	Clip
37	2900 0835 00	•	.....	1	Ring
38		•	.....	1	**Towbar**
	2900 0838 00		1)		**- DIN, A.C.**
	2900 0843 00		2)		**- DIN, A.C.**
	2914 2006 00		1)		**- Ball coupling**
	2900 0844 00		2)		**- Ball coupling**
39	2900 0839 00	••	.....	1	Bolt
40	2900 0840 00	••	.....	1	Handle
41	1619 7213 00	•	.....	1	Support
42	2900 0850 00	•	.....	2	Cap
43	1202 9248 00	•	.....	1	Bolt
44	0301 2344 00	•	.....	1	Washer
45		•	.....	1	Lock nut
	0291 1185 14		.....		- Ball coupling
	0291 1111 00		.....		- DIN, A.C.
46		•	.....		Bolt
	1202 9844 02		.....	2	- Ball coupling
	0147 1409 03		.....	1	- DIN, A.C.
47	0147 1411 03	•	.....	1	Bolt
48	1202 9732 00	•	.....	1	Bush
			.....		- Ball coupling
49		•	.....	2	Lock nut
	0291 1185 13		.....		- Ball coupling
	0291 1112 00		.....		- DIN, A.C.
50		•	.....	1	Towing eye
	1619 7273 00		.....		- Ball coupling
	1614 4392 00		.....		- DIN
	1614 4368 00		.....		- A.C.

1) XA(S)125, XA175
2) XAS175, XAH(S)125

36_066_4_1_0

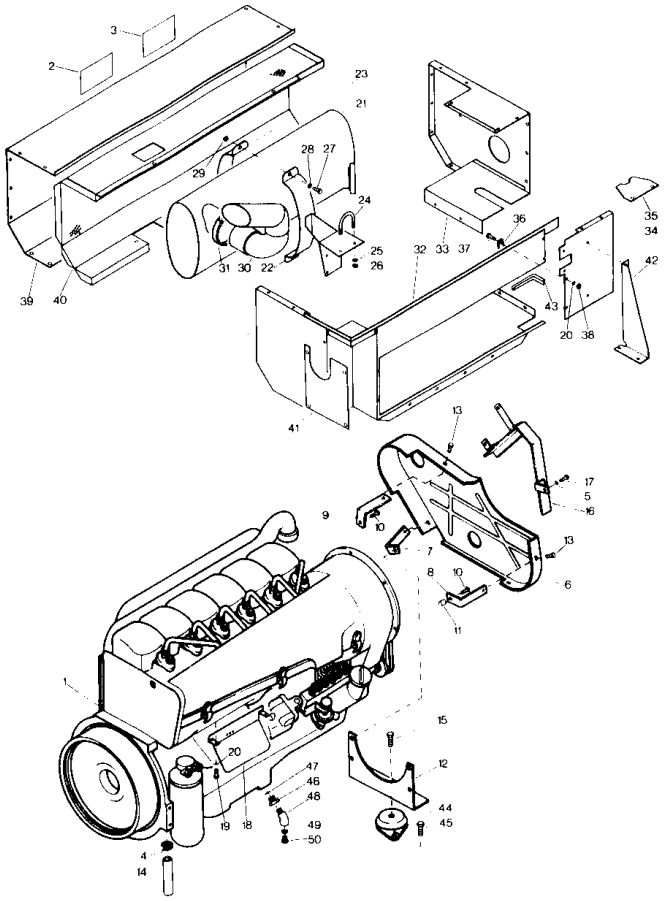
Engine, accessories and exhaust
Motor, toebehoren en uitlaat
Motor, tillbehör och avgasljuddämpare
Motor, Zubehör und Auspuff
Moteur, accessoires et échappement
Motor, accesorios y escape
Motore a scoppio, accessori e scarico



Ref.	A	B	C	D	Designation
1			.....	1	Engine
	1202 9742 00		.....		- F4L913 56kW - XA(S)90DdA, XA(S)125
	1619 7206 00		.....		- F6L913 84kW - XA(S)175
	1619 7338 00		.....		- F6L913 79kW - XAH(S)125
	1202 9889 00		.....		- F4L913 59kW - XA(S)125-South Afrika
	1619 7303 00		.....		- F6L913 89kW - XA(S)175-South Afrika
	1619 7339 00		.....		- F6L913 89kW - XA125DdA
2	1613 5449 00		.....	1	Label
3			.....	1	Label
	1616 4818 00		.....		- English
	1079 9902 82		.....		- Dutch
	1079 9902 83		.....		- Swedish
	1616 4818 04		.....		- German
	1616 4818 05		.....		- French
	1079 9902 86		.....		- Spanish
	1079 9902 87		.....		- Italian
4			.....	1	Label
	2250 9263 00		.....		- English
	1079 9902 22		.....		- Dutch
	1079 9902 23		.....		- Swedish
	1079 9902 24		.....		- German
	1079 9902 25		.....		- French
	1079 9902 26		.....		- Spanish
	1079 9902 27		.....		- Italian
5			.....	1	Label
	2934 0120 00		.....		- XA(S)125Dd
	2934 0121 00		.....		- XA(S)175Dd
6	1616 4462 00		.....	1	Support
7			.....	1	Bolt
	0147 1360 03		2)3)4)5)		- "
	0147 1368 03		6)		- "
8	0333 3232 00		.....	AR	Lock washer
9	1614 2208 00		.....	1	Nipple
10	0562 0505 04		.....	1	Elbow
11	0661 1033 00		.....	1	Gasket
12	0686 4204 00		.....	1	Plug
13			.....	AR	Hose
	0099 9910 47		2)3).....		- "
	0071 8403 23		4)5)6).....		- "
14	0347 6108 00		.....	1	Clamp
15			.....	1	Guard
	1613 3557 00		2).....		- "
	1615 3398 00		4)6).....		- "
16	1616 4057 00		2)4)6).....	1	- Bracket
17	1616 4666 00		2)4)6).....	1	- Bracket
18	1613 2430 04		2)4)6).....	1	- Bracket
19	0147 1336 03		2)4)6).....	2	- Bolt
20	1616 4893 00		2)4)6).....	1	- Spacer
21	0147 1321 03		.....	AR	Bolt
22	1619 2766 00		.....	AR	Bolt
23	0147 1250 03		2)4)6).....	1	- Bolt
24	0333 3220 00		.....	AR	Lock washer
25	0266 2108 00		.....	AR	Nut
26	1616 4532 00		4)5)6).....	1	- Silencer
27	1614 5460 00		4)5)6).....	1	- Bracket
28	1615 4428 00		4)5)6).....	1	- Support
29	1616 4533 00		4)5)6).....	1	- Clamp
30	0147 1363 03		.....	4	Bolt
31	0301 2344 00		.....	AR	Washer
32	1619 6206 00		.....	2	Nut
33			.....	1	Exhaust pipe
	1202 9725 00		2)3).....		- "
	1616 4536 00		4)5)6).....		- "
34	0346 3000 24		4)5)6).....	1	- Clamp
35	1616 4535 00		4)5)6).....	1	- Bracket
36	0147 1362 03		.....	AR	Bolt
37	0266 2111 00		.....	3	Nut
38	0346 0220 00		.....	1	Clamp
39			.....	1	Duct
	1202 9719 00		2)3).....		- "
	1202 9718 00		2)3).....		- "
	1613 6238 00		4)5)6).....		- "
40	1614 3063 00		.....	2	Stiffener
41	0147 1247 03		.....	AR	Bolt
42			.....	1	Cover
	1202 9715 00		1)2)3).....		- "
	1613 6239 00		1)4)5)6).....		- "
43			.....	1	Baffle
	1202 9717 00		2)3).....		- "
	1616 4546 00		4)5)6).....		- "
44	0301 2335 00		.....	4	Washer
45	0266 2110 00		.....	2	Nut
46	1616 4548 00		.....	1	Plate
47	1616 4547 00		.....	1	Support
48	1202 5211 00		.....	AR	Seal
49	1619 5506 01		.....	1	Rubber pad
50	0147 1321 15		.....	2	Bolt
51			.....	1	Duct
	1615 4254 00		3).....		- "
	1616 4508 00		5).....		- "
52	0147 1249 03		3)5).....	6	- Bolt
53	0301 2321 00		3)5).....	6	- Washer
54			.....	1	Brush
	1615 4270 00		3).....		- "
	1616 4471 00		5).....		- "
55	1616 4472 00		3)5).....	4	- Clamp
56	0147 1173 03		3)5).....	4	- Bolt
57	0301 2315 00		3)5).....	4	- Washer
58	0291 1106 00		3)5).....	4	- Lock nut
59			.....	1	Protection
	1202 9712 00		3).....		- "
	1616 4601 00		5).....		- "
60	1616 4657 00		3)5).....	1	- Protection
61	0147 1336 03		3)5).....	1	- Bolt
62	1616 4893 00		3)5).....	1	- Spacer
63	0661 1044 00		.....	1	Gasket
64	0301 2327 00		3)5).....	6	- Washer
65	0291 1108 00		3)5).....	6	- Lock nut
66	1614 3676 00		6).....	1	- Spacer
67	1616 4876 00		4)6).....	1	- Shield
68	1079 9915 80		.....	1	Decal
69	0291 1185 01		4)5)6).....	2	- Lock nut
70	0147 1401 03		4)5)6).....	2	- Bolt
71	0301 2358 00		4)5)6).....	2	- Washer

1) To be lined with mineral wool / Te bekleden met rotswol / Skall kläs med mineralull / Auskleiden mit Rockwool / A garnir avec de la laine minérale / Revestir de lana mineral / Da rivestire con lana minerale
1619 2112 00(AR)
2) XA125
3) XAS125
4) XA125 DdA, XAH125
5) XAS175, XAHS125
6) XA175

01_079_2_0_0


3
2
23
21
29
28
27
24
25
26
31
30
22
39
40
32
33
37
36
35
34
42
43
20
38
41
13
17
5
16
9
10
7
13
8
10
6
11
1
15
20
12
47
46
48
44
45
19
18
49
50
4
14

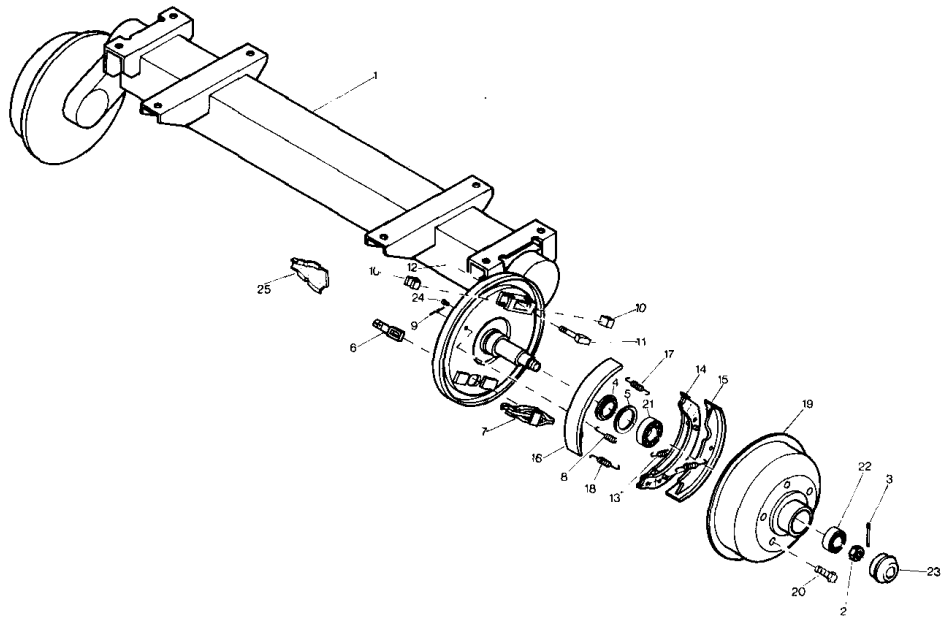
Engine, accessories and exhaust **XA175 DdA**
Motor, toebehoren en uitlaat
Motor, tillbehör och avgasljuddämpare
Motor, Zubehör und Auspuff
Moteur, accessoires et échappement
Motor, accesorios y escape
Motore a scoppio, accessori e scarico

Ref.	A	B	C	D	Designation
1	1619 7358 00		.....	1	Engine
			.....		BF6L 913 104kW
2			.....	1	Label
	1616 4818 00		.....		- English
	1079 9902 82		.....		- Dutch
	1079 9902 83		.....		- Swedish
	1616 4818 04		.....		- German
	1616 4818 05		.....		- French
	1079 9902 86		.....		- Spanish
	1079 9902 87		.....		- Italian
3			.....	1	Label
	2250 9263 00		.....		- English
	1079 9902 22		.....		- Dutch
	1079 9902 23		.....		- Swedish
	1079 9902 24		.....		- German
	1079 9902 25		.....		- French
	1079 9902 26		.....		- Spanish
	1079 9902 27		.....		- Italian
4	0347 6108 00		.....	1	Hose clip
5	0333 3227 00		.....	7	Lock washer
6	1616 3894 00		.....	1	Guard
7	1616 3465 00		.....	1	Bracket
8	1616 3466 00		.....	1	Bracket
9	1616 3990 00		.....	1	Bracket
10	0147 1336 03		.....	2	Bolt
11	1616 4893 00		.....	1	Spacer
12	1616 4462 00		.....	1	Support
13	1619 2766 00		.....	AR	Bolt
14	0071 8403 23		.....	AR	Hose
15	0147 1360 03		.....	1	Bolt
16	1616 3803 00		.....	1	Protection
17	0147 1322 03		.....	3	Bolt
18	1616 4859 00		.....	1	Shield
19	0147 1245 03		.....	2	Bolt
20	0333 3220 00		.....	6	Lock washer
21	1616 4862 00		.....	1	Silencer
22	1616 4860 00		.....	1	Support
23	1616 4861 00		.....	1	Clamp
24	1616 4864 00		.....	2	Clamp
25	0301 2335 00		.....	4	Washer
26	0291 1185 04		.....	4	Lock nut
27	0147 1363 03		.....	2	Bolt
28	0301 2344 00		.....	2	Washer
29	1619 6206 00		.....	2	Nut
30	1616 4863 00		.....	1	Exhaust pipe
31	0346 3001 03		.....	1	Pipe clamp
32	1616 4845 00		.....	1	Duct
33	1616 4848 00		.....	1	Plate
34	1616 4847 00		.....	1	Plate
35	1616 4851 00		.....	1	Plate
36	1614 3063 00		.....	2	Strip
37	0147 1247 03		.....	4	Bolt
38	0266 2108 00		.....	4	Nut
39	1616 4849 00		1)	1	Cover
40	1616 4850 00		.....	1	Baffle
41	1616 4548 00		.....	1	Plate
42	1616 4547 00		.....	1	Support
43	1202 5211 00		.....	AR	Seal
44	1619 5506 01		.....	1	Buffer
45	0147 1321 15		.....	2	Bolt
46	1614 2208 00		.....	1	Nipple
47	0661 1044 00		.....	1	Gasket
48	0562 0505 04		.....	1	Bend
49	0661 1033 00		.....	1	Gasket
50	0686 4204 00		.....	1	Plug

1) To be lined with mineral wool / Te bekleden met rotswol / Skall kläs med mineralull / Auskleiden mit Rockwool / A garnir avec de la laine minérale / Revestir de lana mineral / Da rivestire con lana minerale
1619 2112 00(AR)

01_081_1_0_0

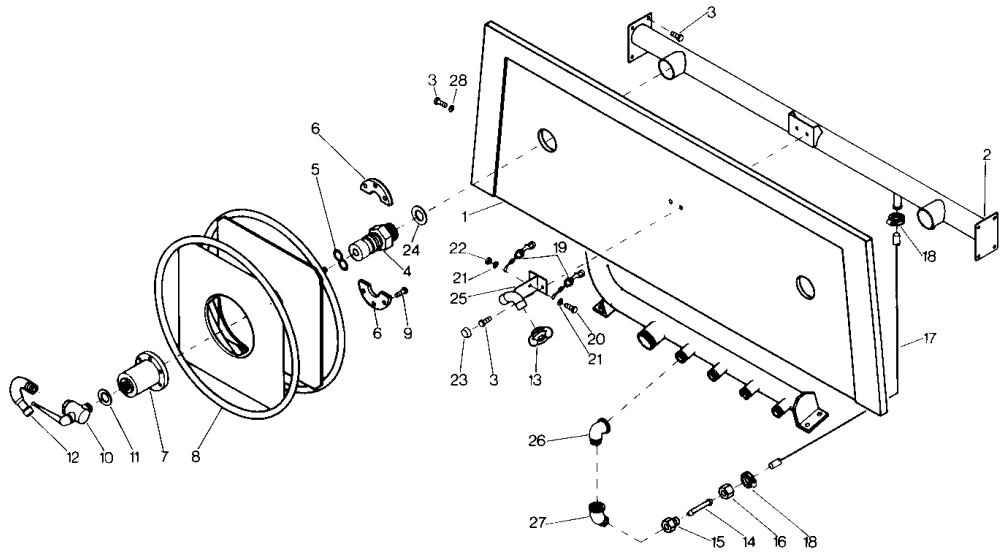
Axle
As
Axel
Achse
Essieu
Eje
Assale



Ref.	A	B	C	D	Designation
-	**1616 4460 00**			1	**Axle**
1	* * *	•		1	Housing
2	1619 0164 00	•		2	Castled nut
3	0111 1375 00	•		2	Split pin
4	1619 2802 00	•		2	Seal ring
5	1619 2801 00	•		2	Seal ring
6	2900 0793 00	•		2	Shackle
7	2900 0794 00	•		2	Clasp
8	2900 0795 00	•		2	Spring
9	2900 0796 00	•		2	Hook
10	2900 0797 00	•		4	Block
11	2900 0798 00	•		2	Tightener
12	2900 0799 00	•		2	Nut
-	**2900 1015 00**	•		2	**Brake shoe**
13	2900 0800 00	••		2	Spring
14	* * *	••		1	Retainer
15	* * *	••		1	Shoe
16	2900 0803 00	•		2	Shoe
17	2900 0804 00	•		2	Spring
18	2900 0805 00	•		2	Spring
19	2900 0806 00	•		2	Brake drum
20	2900 0807 00	•		10	Bolt
21	1619 2805 00	•		2	Bearing
22	1619 2806 00	•		2	Bearing
23	2900 0684 00	•		2	Cap
24	2900 0808 00	•		2	Plug
25	2900 1009 00	•		2	Retainer

37_028_1_0_0

Hose reels (optional)
Haspels voor slangen (als optie)
Slanghasplar (extra utrustning)
Schlauchhaspel (Wahlfrei)
Dévidoir pour flexibles (option)
Devanadera para manguera (como opción)
Avvolgitubi (su richiesta)



Ref.	A	B	C	D	Designation
1	1616 5182 00			1	Cover
2	1616 5180 00			1	Manifold
3	1619 2766 00			14	Bolt
4	1614 4948 00			2	Spindle
5	0663 3133 00			2	O-ring
6	1614 4950 00			4	Retainer
7	1614 4947 00			2	Housing
8	1614 4945 00			2	Hose reel
9	0211 1325 03			12	Cap screw
10	1614 4949 00			2	Valve
11	0661 1038 00			2	Gasket
12	1614 4951 00			2	Connector
13	**9000 0301 00**			**2**	**Coupling**
x	9000 0000 00	•		1	Gasket
14	9000 0325 00			2	Nipple
15	9000 0351 00			2	Adaptor

Ref.	A	B	C	D	Designation
16	9000 0333 00			2	Cap nut
17	0072 8403 26			AR	Hose
18	9000 0196 00			4	Clamp
19	1614 4961 00			2	Hook
20	0147 1249 03			1	Bolt
21	0300 0130 00			2	Washer
22	0291 1108 00			1	Lock nut
23	1613 3672 00			2	Cap
24	0653 1254 00			2	Gasket
25	1616 5181 00			1	Support
26	0560 1306 00			2	Elbow
27	0560 0306 00			2	Elbow
28	0300 8005 00			8	Washer

39_178_1_0_0

Contents "Service kits"
Inhoud "Service kits"
Innehåll "Service kits"
Inhaltsverzeichnis "Service kits"
Table des matières "Service kits"
Indice "Service kits"
Indice "Kit per la manutenzione"

A	C	D	Reference to pages
Kit 2910 0156 00		1	5
Seal kit			
0663 7141 00		1	
1619 3856 00		1	
1619 3857 00		1	
Kit 2910 3005 00		1	23
Regulating valve			
0333 3232 00		2	
0517 1420 00	1)	1	
0653 1062 00		2	
0663 3131 00	1)	1	
0663 3132 00	1)	1	
0663 6112 00	1)	1	
1012 0356 00	1)	1	
2250 5842 00	1)	1	
2250 5843 00	1)	1	
2252 4060 00	1)	1	
Kit 2910 3006 00		1	19,25
Speed regulator			
0333 3227 00		2	
0653 1046 00		2	
0663 2131 00	1)	2	
0663 7512 00	1)	1	
0665 9109 00	1)	1	
2250 5875 00	1)	2	
Kit 2910 3007 00		1	19,26,27
Loading valve			
0653 1046 00		2	
0653 1062 00		3	
0663 3116 00	1)	3	
0663 7110 00	1)	1	
0663 7126 00	1)	2	
Kit 2910 3009 00		1	9,11,21
Oil stop valve			
0661 1033 00	1)	1	
0661 1049 00	1)	2	
0663 3120 00		1	
0663 7135 00		1	
Kit 2910 3012 00		1	19,22
Regulating valve			
0517 1420 00	1)	1	
0653 1062 00		2	
0663 3132 00	1)	1	
0663 6112 00	1)	1	
1012 0356 00	1)	1	
2250 5842 00	1)	1	
2250 5843 00	1)	1	
2250 5847 01	1)	1	
2250 5850 00	1)	1	
Kit 2910 3029 00		1	15,17,24
Minimum pressure valve			
0333 3220 00	1)	4	
0333 3237 00		2	
0653 1046 00		4	
0653 1165 00		1	
0653 1189 00		1	
0663 7135 00	1)	1	
0663 9868 00		1	
1202 9973 00		1	
1613 3223 01	1)	1	
1619 6928 00	1)	1	
Kit 2910 3035 00		1	7,19,20
Unloading valve			
0653 1046 00		1	
0653 1062 00	1)	2	
0653 9038 00	1)	1	
1202 7024 00		1	
1202 7391 00	1)	1	
1619 5531 00	1)	1	
Kit 2910 4045 00	1)	1	5
Compressor element overhaul kit			
0147 1369 03		1	
0147 1409 03		3	
0502 1090 21		1	
0502 2106 00		1	
0502 3107 00		1	
0504 0600 04		4	
0504 2510 00		1	
0508 2108 01		2	
0653 1046 00		2	
0653 1062 00		1	
0663 3117 00		1	
0663 7141 00		1	
1202 7012 00		1	
1202 7015 00		1	
1202 7017 00		1	
1613 2216 13		2	
1619 3856 00		1	
1619 3857 00		1	
Kit 2910 4046 00		1	7,9,11,15, 17,19,29
Compressor element mounting kit			
0653 1062 00		2	
0661 1033 00		2	
0663 3120 00		1	
0663 7135 00		1	
0663 7138 00		1	
1202 7024 00		1	
Kit 2910 6007 00		1	9,11,15, 17,19
Air receiver			
0333 3237 00		4	
0653 1046 00		4	
0653 1062 00		3	
0653 1227 00		1	
0661 1033 00		1	
0661 1038 00		1	
0663 7135 00		1	
0663 9868 00		1	
1202 9973 00		1	
1202 7007 00		2	

1) Parts needed to overhaul the respective sub-assembly, all other parts of the kit to be used for mounting the sub-assembly into the unit /
Komponenten nodig voor de revisie van het respektievelijke onderdeel, alle andere komponenten van de kit gebruiken om het onderdeel in de groep te monteren /
Delar som behövs till ifrågavarande komponentens översyn; alla andra delar i "service kit" skall användas till montering av komponenten i aggregatet /
Komponenten nötig um die respektive Baueinheit zu überholen, alle anderen Komponenten vom "Service Kit" sind zu verwenden um die Baueinheit in die Gruppe einzubauen /
Pièces nécessaires pour la révision du composant respectif; utiliser toutes les autres pièces du kit pour la pose du composant dans le groupe /
Piezas necesarias para la revisión del subconjunto respectivo; utilizar todas las otras piezas del "kit" para montar el subconjunto en el grupo /
Parti necessarie per revisionare il rispettivo sotto-gruppo; tutte le altre parti del kit devono essere usate per montare il sotto-gruppo sull'unità

"Service Pak" Maintenance kits
"Service Pak" Onderhoudskits
"Service Pak" Underhållsutrustningar
"Service Pak" Wartungssätze
"Service Pak" Kit d'entretien
Equipos de mantenimiento "Service Pak"
"Service Pak" Kit per la manutenzione

A	D	Designation	A	D	Designation
2905 0575 01	1	XA(S)125Dd/250h	**2905 0576 01**	1	XA(S)175Dd/250h
2905 0575 02	1	XA(S)125Dd/500h	**2905 0576 02**	1	XA(S)175Dd/500h
2905 0575 01	1	XA(S)125Dd/750h	**2905 0576 01**	1	XA(S)175Dd/750h
2905 0596 03	1	XA(S)125Dd/1000h	**2905 0576 03**	1	XA(S)175Dd/1000h

2910 0156 00 02/2910 3005 00 02/2910 3006 00 04/2910 3007 00 04/2910 3009 00 01/
2910 3012 00 04/2910 3029 00 09/2910 3035 00 03/2910 4045 00 04/2910 4046 00 03/
2910 6007 00 03/8059 2137 21 03/8059 2137 39 03/8070 2218 28 01/8070 2218 36 01/
8092 2294 11 02/8162 0226 05 01/8162 0226 13 01/8162 0320 00 11/8162 0320 18 05/
8162 0320 42 10/8162 0320 83 04/8162 0321 09 11/8162 0321 17 05/8162 0321 25 11/
8162 0321 33 06/8162 0321 41 13/8162 0321 58 07/8162 0321 66 11/8162 0321 74 05/
8162 0321 82 13/8162 0322 08 14/8162 0323 07 12/8162 0323 15 11/8162 0323 23 05/
8162 0323 31 05/8162 0323 49 08/8162 0323 56 08/8162 0323 64 07/8162 0323 72 05/
8162 0323 80 06/8162 0323 98 05/8162 0324 06 12/8162 0324 22 02/8162 0324 30 03/
8162 0324 63 01/8162 0324 97 01/8162 0325 05 06/8162 0325 21 05/8162 0325 70 04/
8162 0325 88 02/8162 0325 96 03/8162 0326 12 03/8162 0326 20 04/8162 0326 38 03/
8162 0326 46 07/8162 0326 61 01/8162 0326 79 01/8162 0326 95 01/8162 0420 09 08/
8162 0420 17 05/8162 0420 41 04/8162 0420 90 05/8162 0421 08 06/8162 0421 16 05/
8162 0421 24 10/8162 0421 32 08/8162 0421 40 08/8162 0421 40 08/8162 0421 57 06/
8162 0421 65 03/8162 0421 73 07/8162 0421 81 07/8162 0422 07 07/8162 0423 06 09/
8162 0428 68 01/8162 0428 84 01
48_092_0_0_4

CHECK LIST ON PARTS

Atlas Copco

1991 - 04

This Atlas Copco check list on parts:

* Solely refers to

Product	:	**XA175 E**
Serial number(s)	:	**ARP - 923 362**
Customer	:	**PUNTA DEL COBRE**
Project number	:	**99443**

* Is a supplement to the parts list with printed matter number **2930 1059 00**
  Both publications must be used together

* Gives information on the most important parts that are comprised in the above-specified product; of parts only listed in the accompanying parts list must be checked whether they are comprised in the product specified above

* Locates the parts either by page and reference number as used in the accompanying parts list or by a remark

* Overrules the information of the accompanying parts list but only for these parts mentioned in this check list

* Parts preceded by one section mark (**§**) are comprised in the assembly(ies) listed above the first section mark.
  Parts preceded by two section marks (**§§**) are comprised in the assembly(ies) listed above the first two section marks.

ATLAS COPCO AIRPOWER n.v. - B-2610 WILRIJK - BELGIUM

Printed Matter No. 2930 1059 30 - 1/6

PAGE	REF	B	PART NUMBER	QTY	DESIGNATION	REMARKS
Compressor element and drive gear						
5	1		1613 2189 82	1	Compressor element	
5	3		1202 7015 00	1	Gasket	
5	6		1202 5440 00	1	Drive shaft	
5	7		0502 1090 21	1	Bearing	
5	8		0504 2510 00	1	Bearing	
5	10		1613 2200 00	1	Bush	
5	11		1613 2201 00	1	Retainer	
5	12		1619 3857 00	1	Seal ring	
5	13		0663 7141 00	1	O-ring	
5	16		1202 8154 00	1	Gearwheel	
5	23		1615 4183 07	1	Coupling half	Compressor side
5	24		1615 4362 00	1	Coupling element	
5	26		1615 4183 08	1	Coupling half	Motor side
5	32		1619 3856 00	1	Seal ring	
Air inlet						
7	-		1616 4445 00	1	Air filter	
7	3	§	1619 2799 00	1	Element	
7	22		1619 3790 01	1	Warning device	
7	23		1619 3794 00	1	Felt disc	
7	24		0657 5742 00	1	Gasket	
7	26		0653 1046 00	1	Gasket	
7	28		2250 8002 00	1	Hump hose	
7	61		1202 7024 00	1	Gasket	
Oil system and cooling						
9	1		1616 5025 00	1	Oil cooler	
9	10		1612 2668 00	1	Housing	
9	14		1613 6105 00	1	Oil filter	
9	34		1616 4491 01	1	Fan	
9	x	§	2900 1014 00	10	Fan blade	
9	37		1616 4787 00	2	Screen	
9	49		1613 2609 07	1	Restrictor	
9	50		0574 8461 38	1	Hose assembly	
9	56		0575 0125 24	1	Hose assembly	
9	58		0575 0125 31	1	Hose assembly	
9	62		0663 3120 00	1	O-ring	
9	63		0663 7135 00	1	O-ring	
Air receiver and delivery pipes						
15	-		1616 4600 80	1	Air receiver	
15	2	§	1616 4616 00	1	Cover	
15	4	§	1202 7007 00	2	Gasket	

PAGE	REF	B	PART NUMBER	QTY	DESIGNATION	REMARKS
15	10		1612 3312 00	1	Level gauge	
15	11		0661 1033 00	1	Gasket	
15	17		0830 2093 00	1	Safety valve	
15	18		0653 1165 00	1	- Gasket	
15	20		1202 7000 00	1	Gasket	
15	27		0663 7138 00	1	O-ring	
15	30		0663 7135 00	2	O-ring	
15	35		1616 4619 02	1	Hose assembly	
15	36		0663 9868 00	2	O-ring	
15	43		1616 4656 00	1	Oil separator	
15	46		1202 6456 00	1	Non return valve	
15	47		1613 5165 00	1	Spring	
			Connections for speed regulation and unloading			
19	27		0574 8102 27	1	Hose assembly	
19	33		1404 1332 00	1	Hose assembly	
19	34		0574 8102 44	1	Hose assembly	From regulating valve to shuttle valve
19	35		0574 8012 07	1	Hose assembly	From pressure gauge to Tee regulating valve
19	38		0574 8102 48	1	Hose assembly	From Tee regulating valve to Tee minimum pressure valve
19	44		9128 1308 01	1	Blow-down valve	
19	55		0574 9012 13	1	Hose assembly	
			Added to list			
-	-		8204 0930 10	1	Shuttle valve	
-	-		1089 0351 32	1	Solenoid valve	
-	-		0574 8402 22	1	Hose assembly	From solenoid valve to minimum pressure valve
-	-		0574 9212 31	1	Hose assembly	From shuttle valve to Tee unloader
			Unloading valve			
20	-		1614 4382 81	1	Unl. valve	
20	2	§	1614 5062 00	1	Valve	
20	-	§	1619 5531 00	1	Seal ring	
20	6	§	1613 3231 00	1	Spring	
20	10	§	1613 2398 00	1	Gasket	
20	11	§	1613 2399 00	1	Valve	

PAGE	REF	B	PART NUMBER	QTY	DESIGNATION	REMARKS
Oil stop valve						
21	-		1613 2355 82	1	Oil stop valve	
21	2	§	1613 2356 00	1	Valve	
21	3	§	1613 2357 00	1	Spring	
21	6	§	1613 2359 00	1	Piston	
Regulating valve						
22	-		2252 0495 80	1	Regul. valve	
22	2	§	2250 5843 00	1	Gasket	
22	-	§	2250 5844 81	1	Seat	
22	6	§	2252 1427 00	1	Spring	
22	7	§	0517 1420 00	1	Ball	
22	8	§	2252 1135 00	1	Retainer	
22	9	§	2250 5850 00	1	Membrane	
22	12	§	2250 5847 01	1	Membrane	
22	14	§	0663 6112 00	1	O-ring	
22	16	§	0663 3132 00	1	O-ring	
22	17	§	2252 1428 00	1	Spring	
22	18	§	2250 5854 00	1	Seat	
22	23	§	2250 5842 00	1	Gasket	
22	24	§	1012 0356 00	1	Filter	
Minimum pressure valve						
24	-		1613 3219 80	1	Minimum pressure valve	
24	2	§	1613 3221 00	1	Valve	
24	6	§	1612 4049 00	1	Spring	
24	7	§	1613 3220 00	1	Piston	
24	8	§	1619 6928 00	1	Seal ring	
24	9	§	1612 4048 00	1	Spring	
24	11	§	0663 7135 00	1	O-ring	
Control panel						
27	6		1619 5268 00	1	Press. gauge	
27	7		1089 9076 01	2	Lampholder	
27	-		1089 9108 02	2	Lamp	
27	9		1089 0362 04	1	Push button	
27	11		1089 0362 05	1	Push button	
27	13		1089 0303 01	1	Hourmeter	
Electrical equipment						
29	29		1089 0376 11	1	Temp. switch	

PAGE	REF	B	PART NUMBER	QTY	DESIGNATION	REMARKS
Frame and mountings						
37	18		1619 3728 00	2	Rubber pad	
37	38		1619 7301 00	1	Wheel	
37	44		1615 4778 01	2	Brake cable	
Non-adjustable towbar - with brakes						
39	-		1202 9365 82	1	Towbar	
39	1	§	1202 9249 00	1	Shock absorber	
39	8	§	1202 9251 00	1	O-ring	
39	13	§	2900 0814 00	1	Cable	
39	26	§	2900 1137 00	1	Spring	
39	30	§	2914 2004 00	1	Brake cable	
					- "	
Engine, accessories and exhaust						
43	1		1080 2580 02	1	Motor	
43	49		1202 9006 03	2	Rubber pad	
Axle						
46	-		1616 4460 00	1	Axle	
46	4	§	1619 2802 00	2	Seal ring	
46	5	§	1619 2801 00	2	Seal ring	
46	6	§	2900 0793 00	2	Shackle	
46	8	§	2900 0795 00	2	Spring	
46	-	§	2900 1015 00	2	Brake shoe	
46	13	§§	2900 0800 00	2	Spring	
46	16	§	2900 0803 00	2	Shoe	
46	17	§	2900 0804 00	2	Spring	
46	18	§	2900 0805 00	2	Spring	
46	19	§	2900 0806 00	2	Brake drum	
46	21	§	1619 2805 00	2	Bearing	
46	22	§	1619 2806 00	2	Bearing	
Added list						
-	-		1900 0120 54	1	Cubicle	
-	-	§	1612 9001 00	1	Cubicle	
-	-	§	1613 2925 00	1	Mounting panel	
-	-	§	1089 9136 16	1	Transformer	T1
-	-	§	1089 9221 10	1	Contactor	K21
-	-	§	1089 9205 06	1	Overload relay	F21
-	-	§	1089 9173 02	1	Phase sequence relay	K25
-	-	§	1089 9277 05	1	Time relay	K2

PAGE	REF	B	PART NUMBER	QTY	DESIGNATION	REMARKS
-	-	§	1089 9146 03	1	Relay	K1
-	-	§	1089 9203 03	1	Circuit breaker	F4
-	-	§	9828 0279 05	1	Label	
-	-	§	1089 9203 04	3	Circuit breaker	F1, F2 and F3