

**Parts List**  
for Portable Generators  
English

QAS 70 JD T4A HOP

QAS 90 JD T4A HOP

QAS 120 JD T4A HOP

Engine JD 4045 HFG92

Engine JD 4045 HFG93



# **QAS 70 JD T4A HOP**

# **QAS 90 JD T4A HOP**

# **QAS 120 JD T4A HOP**

Engine JD 4045 HFG92  
Engine JD 4045 HFG93

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## **INSTRUCTION MANUAL**

### **Warranty and Liability Limitation**

Use only authorized parts.

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# **SAFETY PRECAUTIONS FOR PORTABLE GENERATORS**

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

## **0.1 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,
- providing the manual with up-to-date information.

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

Keep the manual always at the unit location, easy accessible to the operating personnel.

See also the safety precautions of the engine and possible other equipment, which are separately sent along or are mentioned on the equipment or parts of the unit.

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

Only people that have the right skills should be allowed to operate, adjust, perform maintenance or repair on Atlas Copco equipment. It is the responsibility of management to appoint operators with the appropriate training and skill for each category of job.

### **Skill level 1: Operator**

An operator is trained in all aspects of operating the unit with the push-buttons, and is trained to know the safety aspects.

### **Skill level 2: Mechanical technician**

A mechanical technician is trained to operate the unit the same as the operator. In addition, the mechanical technician is also trained to perform maintenance and repair, as described in the instruction manual, and is allowed to change settings of the control and safety system. A mechanical technician does not work on live electrical components.

### **Skill level 3: Electrical technician**

An electrical technician is trained and has the same

qualifications as both the operator and the mechanical technician. In addition, the electrical technician may carry out

electrical repairs within the various enclosures of the unit. This includes work on live electrical components.

### **Skill level 4: Specialist from the manufacturer**

This is a skilled specialist sent by the manufacturer or its agent to perform complex repairs or modifications to the equipment.

In general it is recommended that not more than two people operate the unit, more operators could lead to unsafe operating conditions. Take necessary steps to keep unauthorized persons away from the unit and eliminate all possible sources of danger at the 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.

Neglecting the safety precautions may endanger people as well as environment and machinery:

- endanger people due to electrical, mechanical or chemical influences,
- endanger the environment due to leakage of oil, solvents or other substances,
- endanger the machinery due to function failures.

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 instruction manual, is disclaimed by Atlas Copco.

The manufacturer does not accept any liability for any damage arising from the use of non-original parts and for modifications, additions or conversions made without the manufacturer's approval in writing.

If any statement in this manual does not comply with local legislation, the stricter of the two shall be applied.

Statements in these safety precautions should not be interpreted as suggestions, recommendations or inducements that it should be used in violation of any

applicable laws or regulations.

## **0.2 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 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, as well as the consuming devices, are in good repair, free of abnormal wear or abuse, and are not tampered with.
- 3 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 oil vapour when air is admitted.
- 4 Normal ratings (pressures, temperatures, speeds, etc.) shall be durably marked.
- 5 Operate the unit only for the intended purpose and within its rated limits (pressure, temperature, speeds, etc.).
- 6 The machinery and equipment shall be kept clean, i.e. as free as possible from oil, dust or other deposits.
- 7 To prevent an increase in working temperature, inspect and clean heat transfer surfaces (cooler fins, intercoolers, water jackets, etc.) regularly. See the maintenance schedule.
- 8 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.
- 9 Pressure and temperature gauges shall be checked regularly with regard to their accuracy. They shall be replaced whenever outside acceptable tolerances.
- 10 Safety devices shall be tested as described in the maintenance schedule of the instruction manual to determine that they are in good operating condition.
- 11 Mind the markings and information labels on the unit.
- 12 In the event the safety labels are damaged or destroyed, they must be replaced to ensure operator safety.

- 13 Keep the work area neat. Lack of order will increase the risk of accidents.
- 14 When working on the unit, wear safety clothing. Depending on the kind of activities these are: safety glasses, ear protection, safety helmet (including visor), safety gloves, protective clothing, safety shoes. Do not wear the hair long and loose (protect long hair with a hairnet), or wear loose clothing or jewelry.
- 15 Take precautions against fire. Handle fuel, oil and anti-freeze with care because they are inflammable substances. Do not smoke or approach with naked flame when handling such substances. Keep a fire-extinguisher in the vicinity.

**16a Portable generators (with earthing pin):**

Earth the generator as well as the load properly.

**16b Portable generators IT:**

**Note:** This generator is built to supply a sheer alternating current IT network.

Earth the load properly.

## 0.3 SAFETY DURING TRANSPORT AND INSTALLATION

To lift a unit, all loose or pivoting parts, e.g. doors and towbar, 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 regulations. Never allow sharp bends in lifting cables, chains or ropes.

Helicopter lifting is not allowed.

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:
  - check the towbar, the brake system and the towing eye. Also check the coupling of the towing vehicle,
  - check the towing and brake capability of the towing vehicle,
  - check that the towbar, jockey 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 or safety chain to the towing vehicle,
  - remove wheel chocks, if applied, and disengage the parking brake.
- 2 To tow a unit use a towing vehicle of ample capacity. Refer to the documentation of the towing vehicle.
- 3 If the unit is to be backed up by the towing vehicle, disengage the overrun brake mechanism (if it is not an automatic mechanism).
- 4 Never exceed the maximum towing speed of the unit (mind the local regulations).
- 5 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 or safety chain. If the unit has no parking brake or jockey wheel, immobilize the unit by placing chocks in front of and/or behind the wheels. When the towbar can be positioned vertically, the locking device must be applied and kept in good order.
- 6 To lift heavy parts, a hoist of ample capacity, tested and approved according to local safety regulations, shall be used.
- 7 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.
- 8 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.
- 9 Never leave a load hanging on a hoist.
- 10 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.
- 11 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 recirculated. 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.
- 12 Generators shall be stalled on an even, solid floor, in a clean location with sufficient ventilation. If the floor is not level or can vary in inclination, consult Atlas Copco.
- 13 The electrical connections shall correspond to local codes. The machines shall be earthed and protected against short circuits by fuses or circuit breakers.
- 14 Never connect the generator outlets to an installation which is also connected to a public mains.
- 15 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.

## 0.4 SAFETY DURING USE AND OPERATION

- 1 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.
- 2 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; do this in such a way that no extra back pressure is created for the engine. If necessary, install an extractor. Observe any existing local regulations. Make sure that the unit has sufficient air intake for operation. If necessary, install extra air intake ducts.
- 3 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.
- 4 Never remove a filler cap of the cooling water system of a hot engine. Wait until the engine has sufficiently cooled down.
- 5 Never refill fuel while the unit is running, unless otherwise stated in the Atlas Copco Instruction Book (AIB). 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.
- 6 All doors shall be shut during operation so as not to disturb the cooling air flow inside the bodywork and/or render the silencing less effective. A door should be kept open for a short period only e.g. for inspection or adjustment.
- 7 Periodically carry out maintenance works according to the maintenance schedule.
- 8 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.
- 9 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.
- 10 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.
  - 11 Never operate the unit in surroundings where there is a possibility of taking in flammable or toxic fumes.
  - 12 If the working process produces fumes, dust or vibration hazards, etc., take the necessary steps to eliminate the risk of personnel injury.
  - 13 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.
  - 14 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.
  - 15 Safety shoes should be compulsory in any workshop and if there is a risk, however small, of falling objects, wearing of a safety helmet should be included.
  - 16 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.
  - 17 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.
- 18 Never operate the generator in excess of its limits as indicated in the technical specifications and avoid long no-load sequences.
  - 19 Never operate the generator in a humid atmosphere. Excessive moisture causes worsening of the generator insulation.
  - 20 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.
  - 21 Never touch the power terminals during operation of the machine.
  - 22 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 restarting.
  - 23 Check the electric cables regularly. Damaged cables and insufficient lightening of connections may cause electric shocks. 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 restarting. Make sure that all electric connections are securely tightened.
  - 24 Avoid overloading the generator. The generator is provided with circuit breakers for overload protection. When a breaker has tripped, reduce the concerned load before restarting.
  - 25 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.
  - 26 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.
  - 27 Running the generator at low load for long periods will reduce the lifetime of the engine.

## **0.5 SAFETY DURING MAINTENANCE AND REPAIR**

Maintenance, overhaul 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, and only tools which are in good condition.
- 2 Parts shall only be replaced by genuine Atlas Copco replacement parts.
- 3 All maintenance work, other than routine attention, shall only be undertaken when the unit is stopped. 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.
- 4 Prior to stripping an engine or other machine or undertaking major overhaul on it, prevent all movable parts from rolling over or moving.
- 5 Make sure that no tools, loose parts or rags are left in or on the machine. Never leave rags or loose clothing near the engine air intake.
- 6 Never use flammable solvents for cleaning (fire-risk).
- 7 Take safety precautions against toxic vapours of cleaning liquids.
- 8 Never use machine parts as a climbing aid.
- 9 Observe scrupulous cleanliness during maintenance and repair. Keep away dirt, cover the parts and exposed openings with a clean cloth, paper or tape.
- 10 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.
- 11 Support the towbar and the axle(s) securely if working underneath the unit or when removing a wheel. Do not rely on jacks.

- 12 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. If any sound-damping material is damaged, replace it to prevent the sound pressure level from increasing.
- 13 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. Never mix synthetic with mineral oil.
- 14 Protect the engine, alternator, air intake filter, electrical and regulating components, etc., to prevent moisture ingress, e.g. when steam-cleaning.
- 15 When performing any operation involving heat, flames or sparks on a machine, the surrounding components shall first be screened with non-flammable material.
- 16 Never use a light source with open flame for inspecting the interior of a machine.
- 17 When repair has been completed, the machine shall be barreled 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.
- 18 Maintenance and repair work should be recorded in an operator's logbook for all machinery. Frequency and nature of repairs can reveal unsafe conditions.
- 19 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.
- 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.
- 21 Make sure that oil, solvents and other substances likely to pollute the environment are properly disposed of.
- 22 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 shutdown devices function correctly.

## **0.6 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.

## **0.7 SPECIFIC SAFETY PRECAUTIONS**

### **Batteries**

When servicing batteries, always wear protecting clothing and glasses.

- 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.



## **ORDERING SPARE PARTS**

### **ORDERING SPARE PARTS**

Always quote the part number, the designation and the quantity of the parts required, as well as the type and the serial number of the machine.

### **EXPLANATION OF THE COLUMNS**

#### ***REF : REFERENCE CODE***

Establishes the connection between a part in the list and a part in the illustration.

"—" means that the part is not shown in the illustration.

#### ***PART NUMBER***

If no part number is given, the part cannot be obtained as a spare part.

Parts marked with a dot are part of the assembly listed right above them.

#### ***DESIGNATION***

Usually this is the name of the part. For standard parts, in addition to the name, a number of characteristics are given.

#### ***QTY : QUANTITY***

Indicates the quantity of the part concerned. "AR" stands for "As Required".

### **COMMANDE DE PIÈCES DETACHEES**

Toujours indiquer le numéro de pièce, la désignation, la quantité désirée ainsi que le type et le numéro de série du groupe.

### **EXPLICATION DES INTITULES DES COLONNES**

#### ***REF : CODE DE REFERENCE***

Réfère à la pièce détachée spécifiée dans la liste et sur l'illustration. "—" implique que la pièce n'est pas indiquée sur l'illustration.

#### ***PART NUMBER : NUMERO DE PIECE DETACHEE***

Si le numéro n'est pas indiqué, la pièce n'est pas disponible en tant que pièce de rechange.

Les pièces indiquées par un point gras font partie de l'ensemble se trouvant au-dessus des pièces détachées correspondantes.

#### ***DESIGNATION***

En général, le nom de la pièce. S'il s'agit de pièces standard, outre la désignation, un certain nombre de caractéristiques sont indiquées.

#### ***QTY : QUANTITE***

Indique la quantité de la pièce détachée. "AR" indique "As required", c'est-à-dire la quantité à déterminer selon le cas.

### **PEDIDO DE PARTES**

Siempre comunicar el número de parte, la designación y la cantidad deseada así como el tipo y el número de serie de la máquina.

### **INFORMACIONES SOBRE LAS COLUMNAS**

#### ***REF : CODIGO DE REFERENCIA***

Establece la conexión entre una parte en la lista y una parte en la ilustración.

"—" quiere decir que la parte no está ilustrada.

#### ***PART NUMBER : NUMERO DE PARTE***

Si no se da ningún número, quiere decir que la parte no está disponible como parte de recambio.

Partes marcadas con un punto son partes del conjunto indicado más arriba.

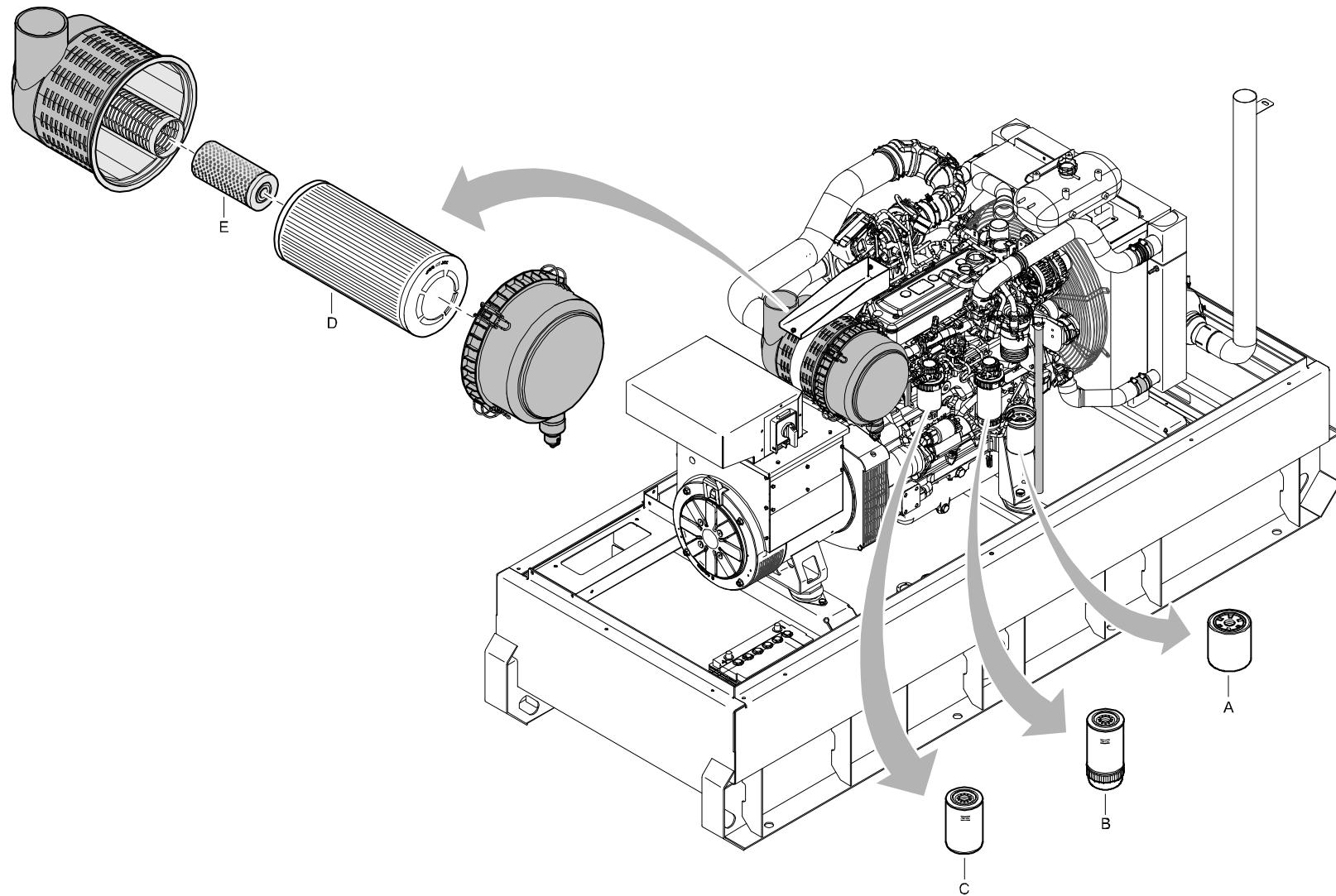
#### ***DESIGNATION : DESIGNACION***

Principalmente el nombre de la parte. En caso de partes estándares, el nombre es seguido por especificaciones.

#### ***QTY : CANTIDAD***

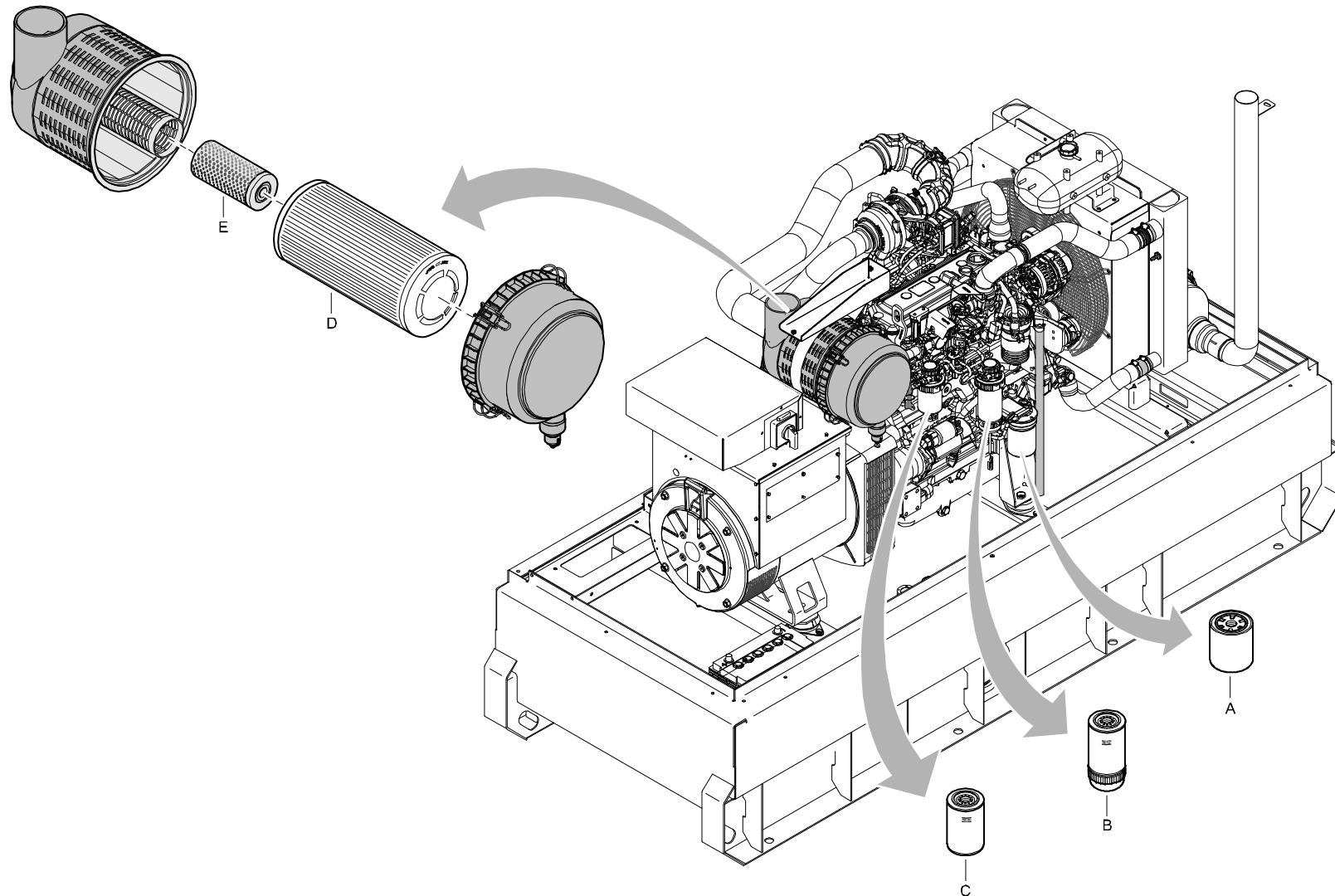
Indica la cantidad de la parte correspondiente. La indicación "AR" significa "As Required" (como sea requerido).





**SERVICE PAK - QAS-70-90**

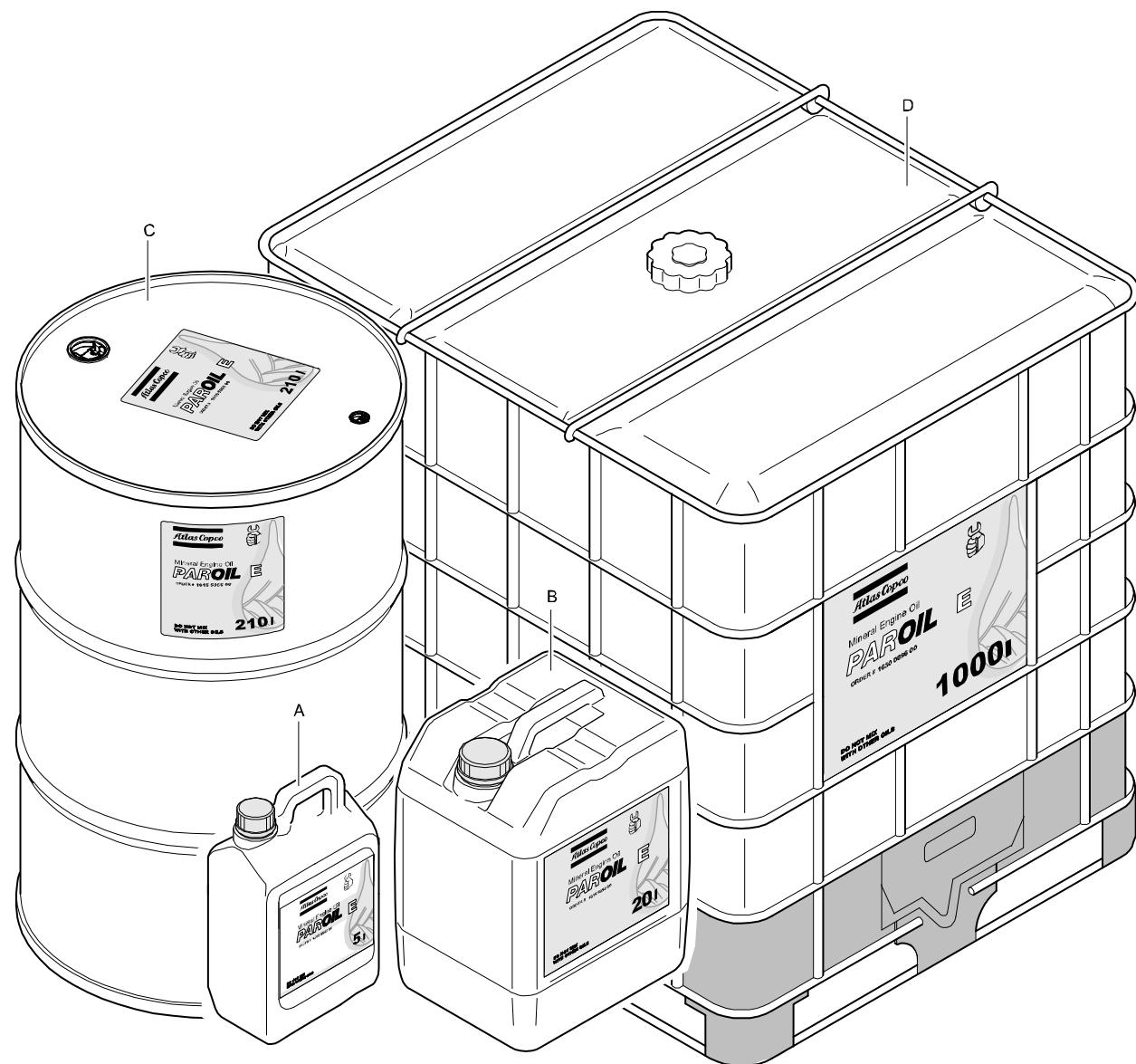
REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
-	1310 3004 42	SERVICE PAK 500HR		A	-	OIL FILTER	1				
A	-	OIL FILTER	1	B	-	FUEL FILTER	1				
B	-	FUEL FILTER	1	C	-	FUEL FILTER	1				
C	-	FUEL FILTER	1	D	-	AIR FILTER ELEMENT	1				
D	-	AIR FILTER ELEMENT	1								
-	1310 3004 43	SERVICE PAK 1000HR OR YEARLY		A	-	OIL FILTER	1				
A	-	OIL FILTER	1	B	-	FUEL FILTER	1				
B	-	FUEL FILTER	1	C	-	FUEL FILTER	1				
C	-	FUEL FILTER	1	D	-	AIR FILTER ELEMENT	1				
D	-	AIR FILTER ELEMENT	1	E	-	SAFETY CARTRIDGE	1				
E	-	SAFETY CARTRIDGE	1								



**SERVICE PAK - QAS-120**

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
-	1310 3004 42	SERVICE PAK 500HR		A	-	OIL FILTER	1				
A	-	OIL FILTER	1	B	-	FUEL FILTER	1				
B	-	FUEL FILTER	1	C	-	FUEL FILTER	1				
C	-	FUEL FILTER	1	D	-	AIR FILTER ELEMENT	1				
D	-	AIR FILTER ELEMENT	1								
-	1310 3004 43	SERVICE PAK 1000HR OR YEARLY		A	-	OIL FILTER	1				
A	-	OIL FILTER	1	B	-	FUEL FILTER	1				
B	-	FUEL FILTER	1	C	-	FUEL FILTER	1				
C	-	FUEL FILTER	1	D	-	AIR FILTER ELEMENT	1				
D	-	AIR FILTER ELEMENT	1	E	-	SAFETY CARTRIDGE	1				
E	-	SAFETY CARTRIDGE	1								

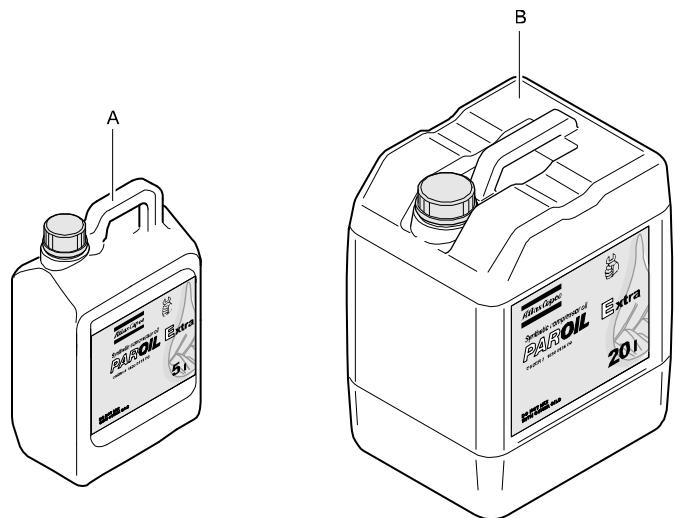
## ENGINE OIL - PAROIL E



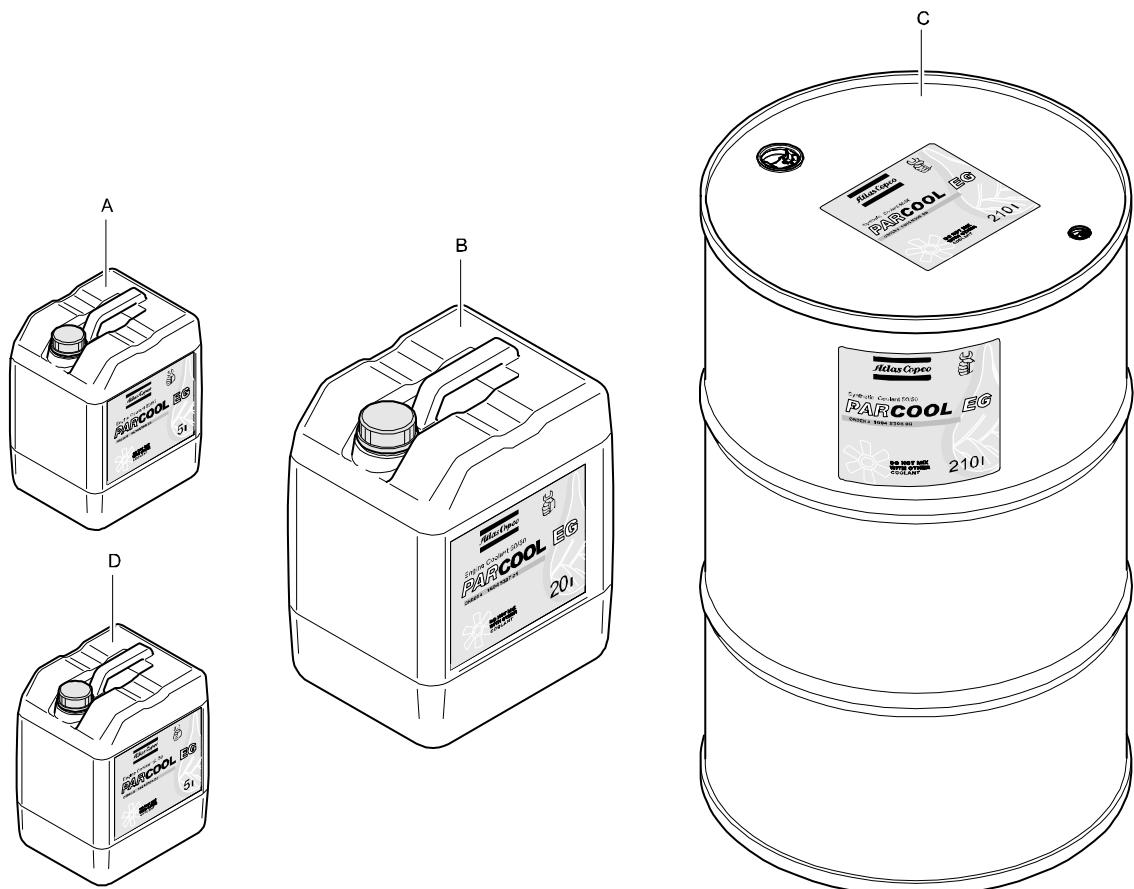
REF	PART NUMBER	DESIGNATION	QTY
A	1615 5953 00	OIL CAN 5 L	1
B	1615 5954 00	OIL CAN 20 L	1
C	1615 5955 00	STEEL DRUM 209 L	1
D	1630 0096 00	CONTAINER 1000 L	1

## ENGINE OIL - PAROIL E XTRA

REF	PART NUMBER	DESIGNATION	QTY
A	1630 0135 00	OIL CAN 5 L	1
B	1630 0136 00	OIL CAN 20 L	1

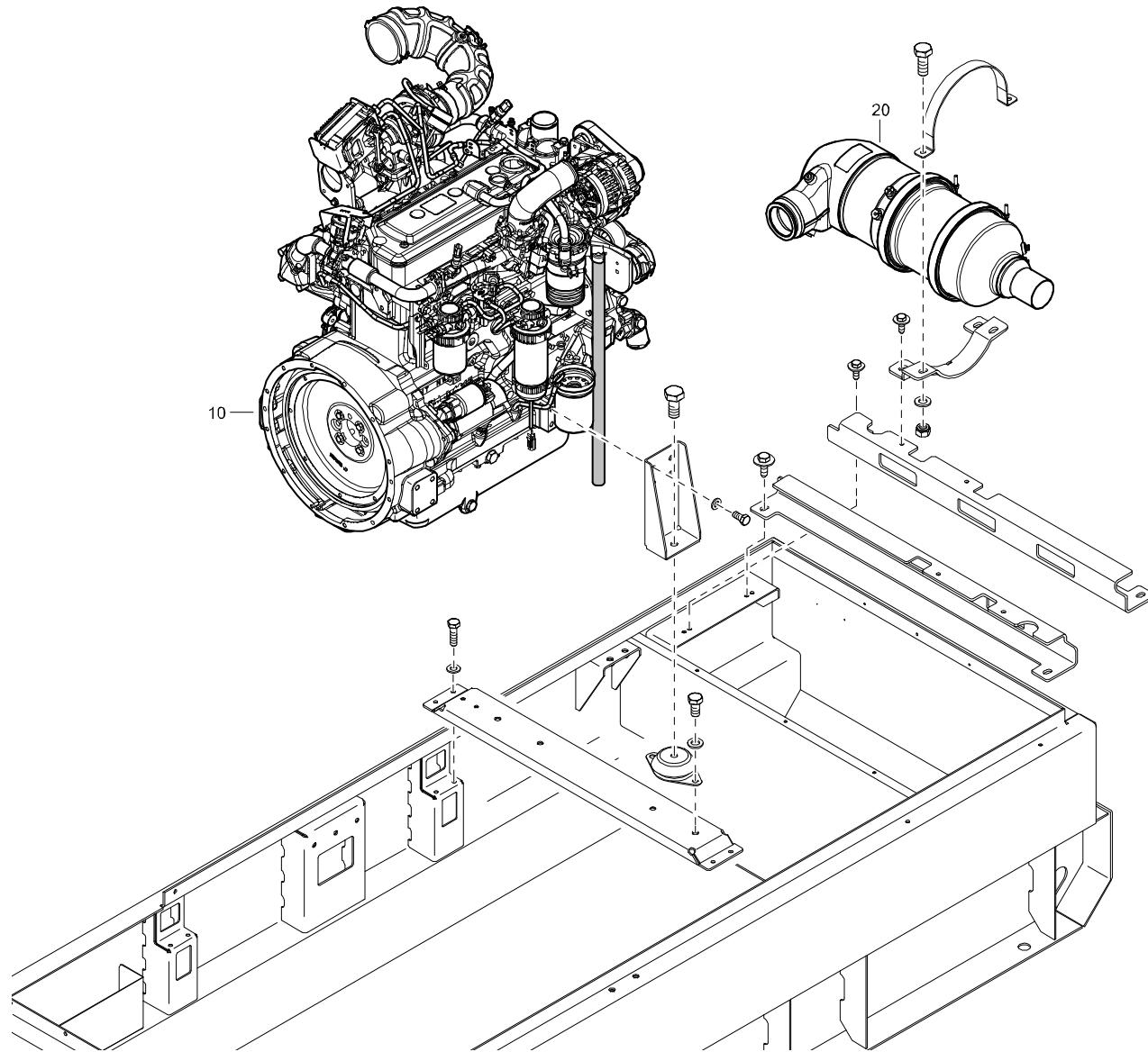


## ENGINE COOLANT - PARCOOL EG



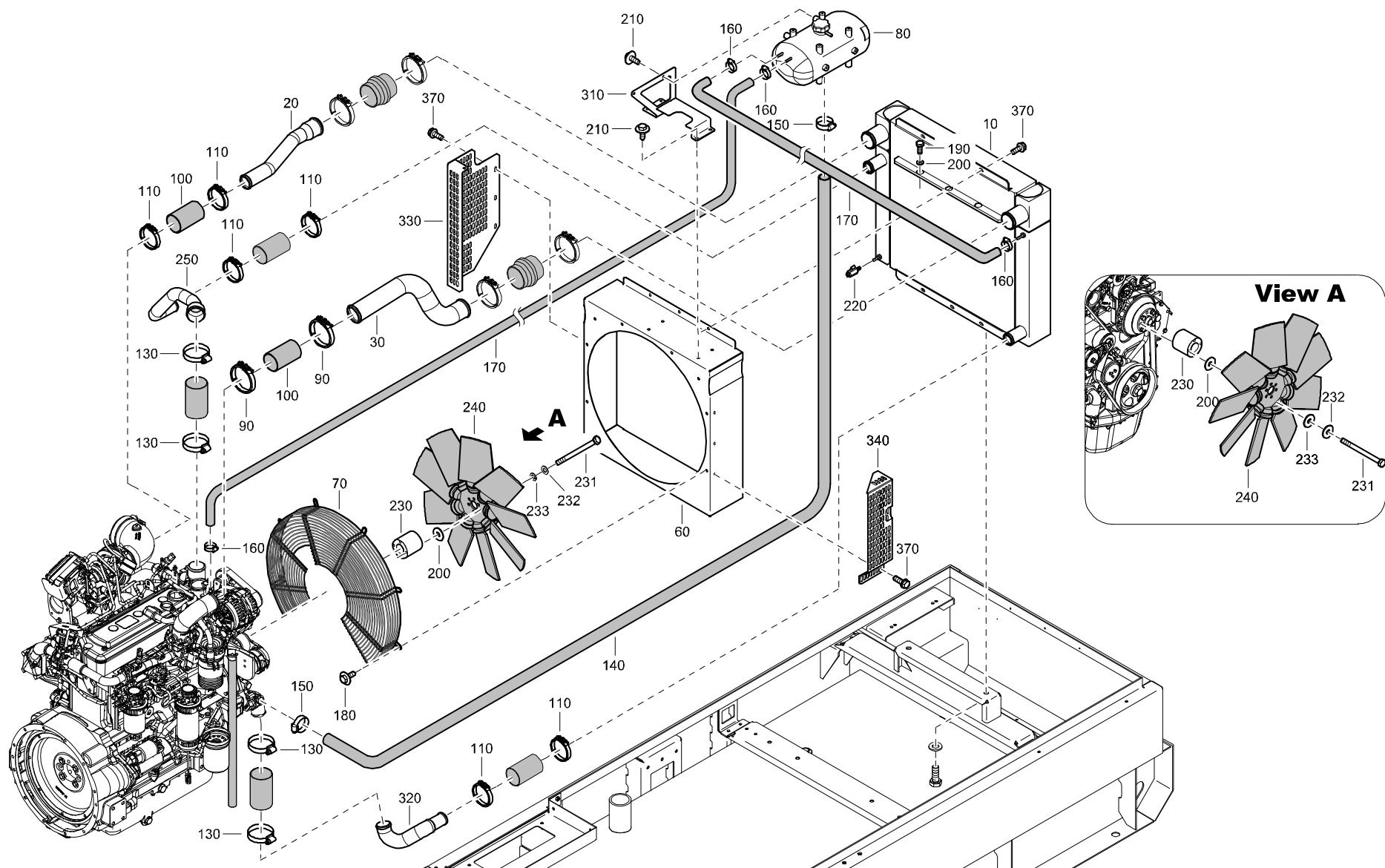
REF	PART NUMBER	DESIGNATION	QTY
A	1604 5308 00	PARCOOL EG 5 LITER CAN	1
B	1604 5307 01	PARCOOL EG 20 LITER CAN	1
C	1604 5306 00	PARCOOL EG 210 LITER BARREL	1
D	1604 8159 00	PARCOOL EG CONCENTRATE 5 LITER CAN	1

## ENGINE - QAS 70-90 - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
10	1310 0723 90	ENGINE	1
20	1310 0724 76	AFTER TREATMENT	1

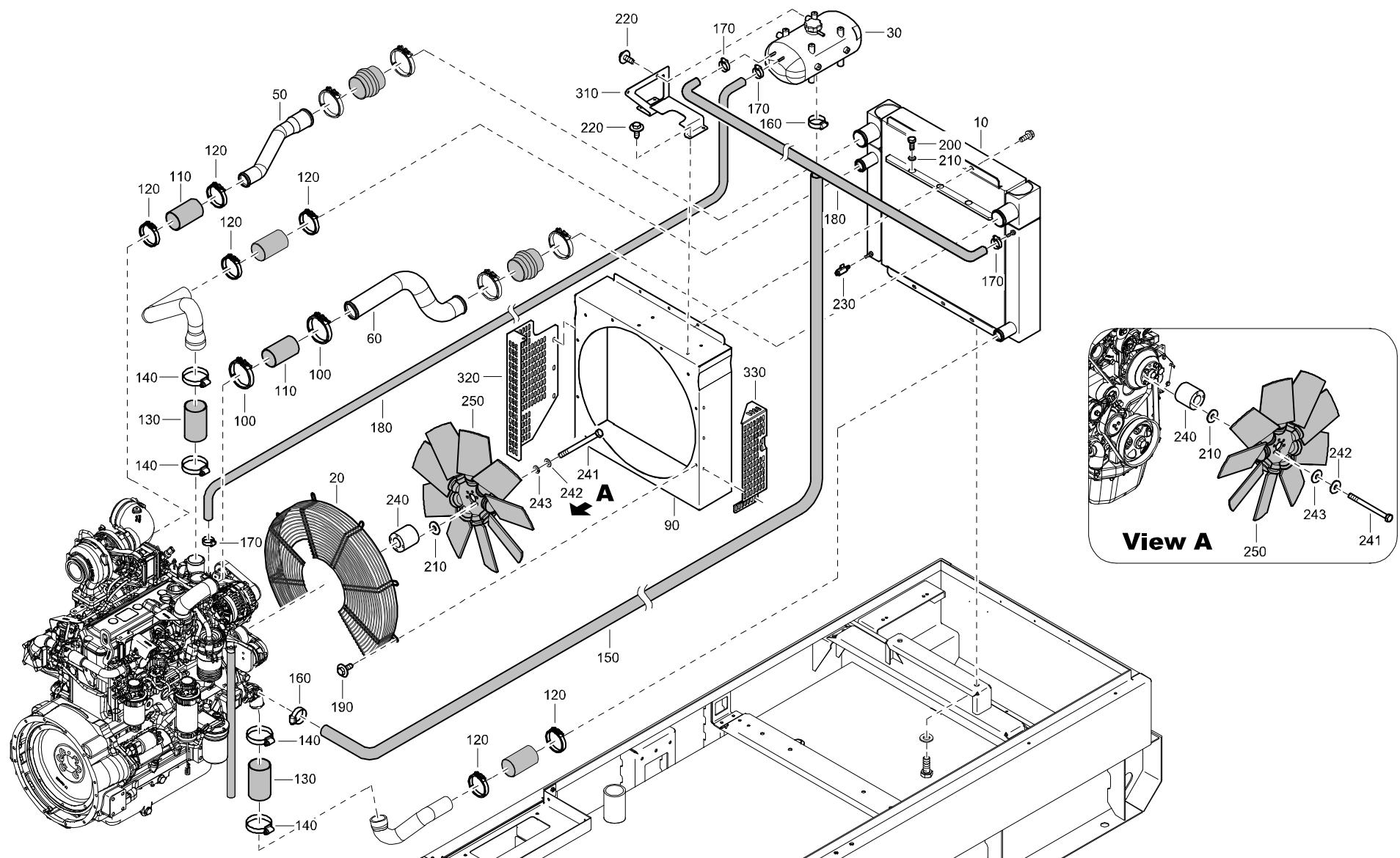
## COOLING SYSTEM - QAS 70-90 - STANDARD



**COOLING SYSTEM - QAS 70-90 - STANDARD**

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 0730 64	COOLER	1								
20	1310 5011 00	PIPE	1								
30	1310 5012 00	PIPE	1								
60	1310 6916 01	FAN BOX	1								
70	1310 0363 00	GUARD	1								
80	1310 0789 02	TOP TANK	1								
90	1310 0360 38	CLAMP	2								
100	1310 0370 04	CONNECTOR	2								
110	1310 0370 05	CLAMP	6								
130	0347 6113 00	CLAMP	4								
140	1310 0723 07	HOSE	2								
150	0347 6109 00	HOSE CLAMP	2								
160	1310 0323 84	CLAMP	4								
170	1310 0311 97	HOSE	5								
180	1615 5664 00	BOLT	6								
190	0147 1327 03	SCREW	6								
200	0300 8019 00	WASHER	12								
210	1615 5664 00	BOLT	6								
220	1615 7072 00	VALVE	1								
230	1310 0354 82	SPACER	1								
231	0147 1340 03	SCREW	4								
232	0301 2335 00	WASHER	4								
233	0333 2225 00	WASHER	4								
240	1310 0354 80	FAN	1								
250	1310 8802 00	PIPE	0								
310	1310 8658 00	BRACKET	1								
320	1310 8803 00	PIPE	0								
330	1310 8821 01	GUARD	0								
340	1310 8822 01	GUARD	0								
370	1619 2766 00	SCREW	2								
380	1310 8803 00	PIPE	1								

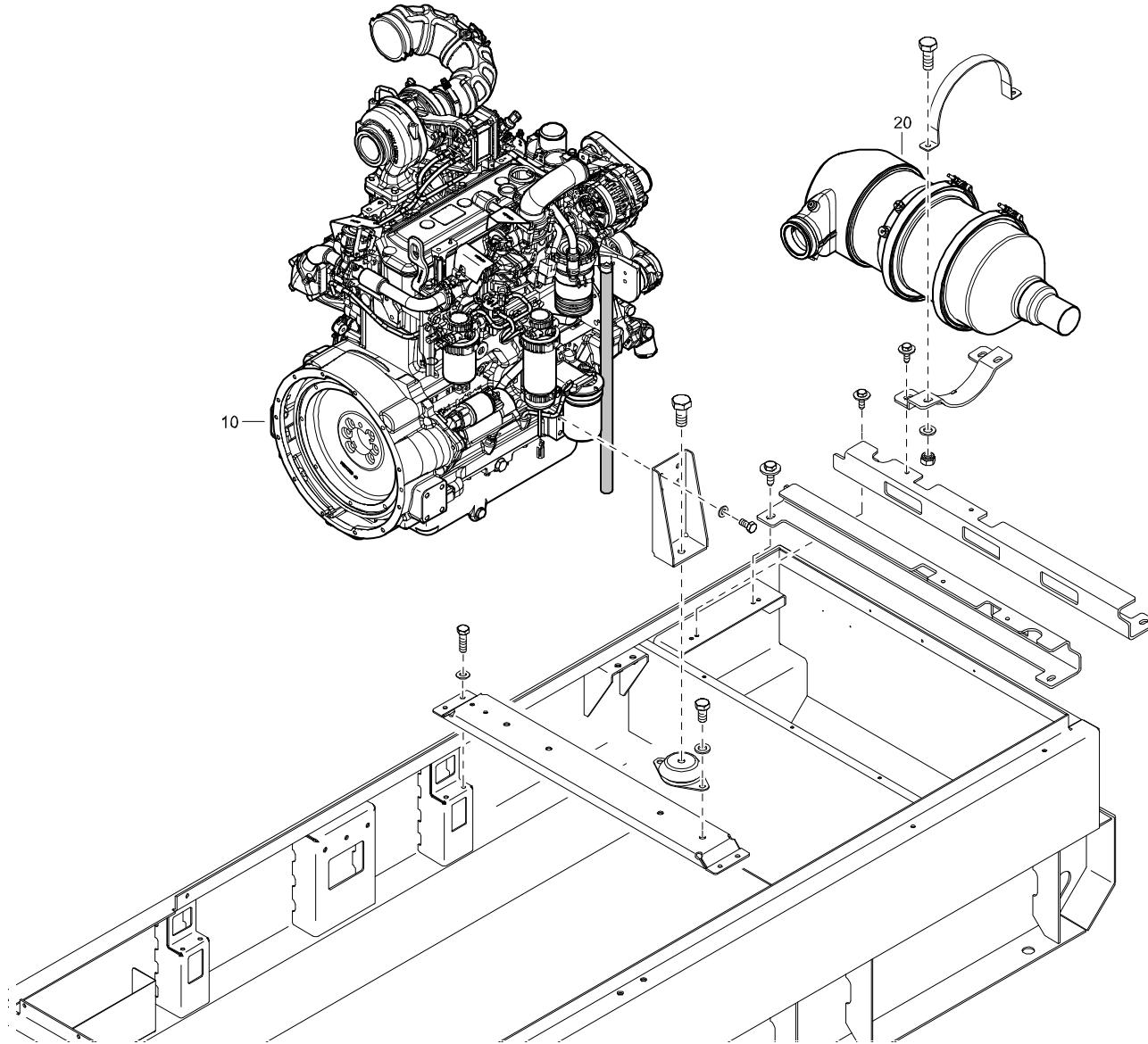
## COOLING SYSTEM - QAS 120 - STANDARD



**COOLING SYSTEM - QAS 120 - STANDARD**

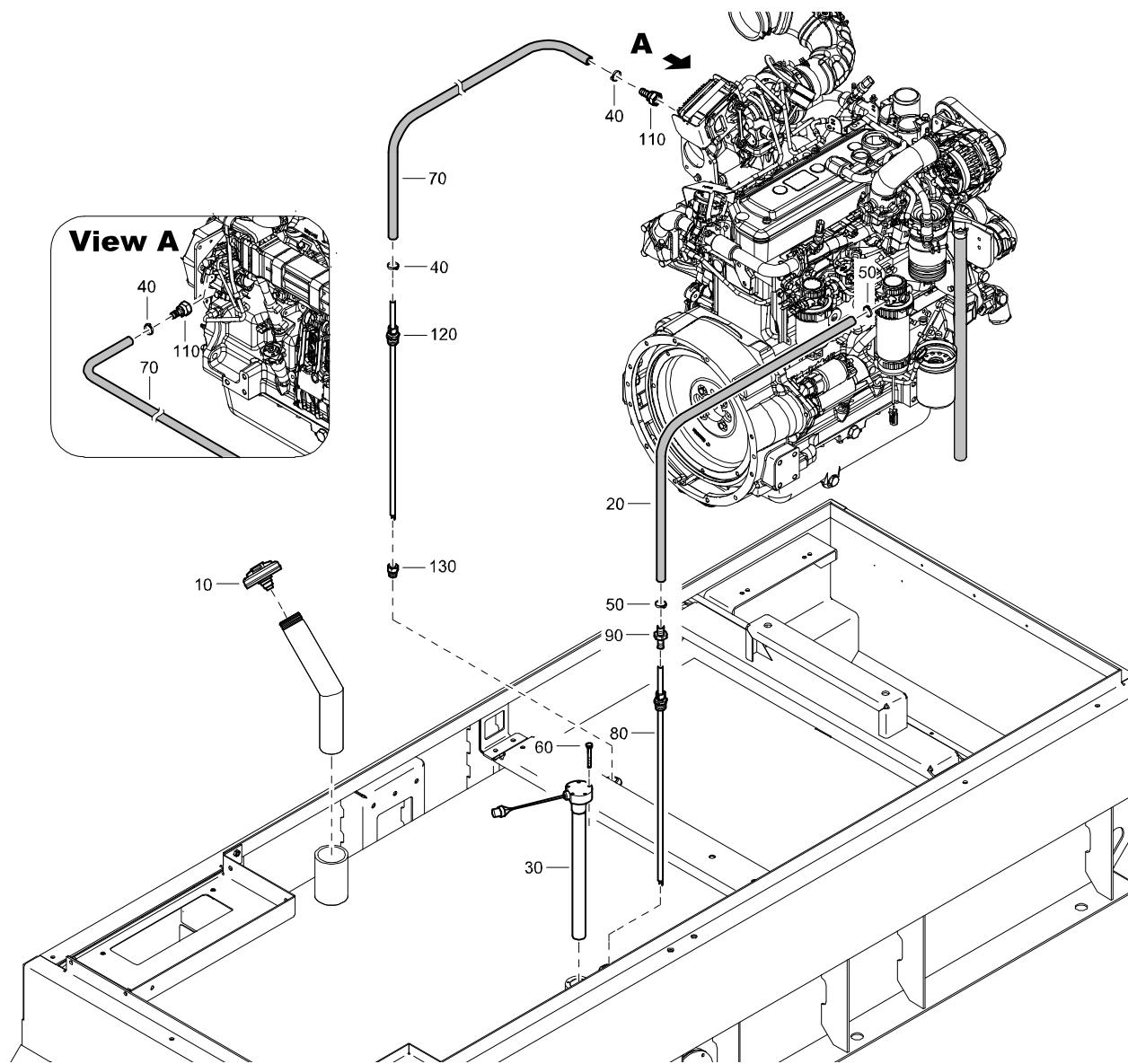
REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 0730 65	COOLER	1								
20	1310 0363 00	GUARD	1								
30	1310 0789 02	TOP TANK	1								
50	1310 5011 02	TUBE	1								
60	1310 5012 00	PIPE	1								
90	1310 6916 01	FAN BOX	1								
100	1310 0360 38	CLAMP	2								
110	1310 0370 04	CONNECTOR	2								
120	1310 0370 05	CLAMP	6								
130	1310 0370 07	HOSE	AR								
140	0347 6113 00	CLAMP	4								
150	1310 0723 07	HOSE	2								
160	0347 6109 00	HOSE CLAMP	2								
170	1310 0323 84	CLAMP	4								
180	1310 0311 97	HOSE	5								
190	1615 5664 00	BOLT	6								
200	0147 1327 03	SCREW	6								
210	0300 8019 00	WASHER	12								
220	1615 5664 00	BOLT	6								
230	1615 7072 00	VALVE	1								
240	1310 0354 82	SPACER	1								
241	0147 1340 03	SCREW	4								
242	0301 2335 00	WASHER	4								
243	0333 2225 00	WASHER	4								
250	1310 0354 80	FAN	1								
310	1310 8658 00	BRACKET	1								
320	1310 8821 01	GUARD	1								
330	1310 8822 01	GUARD	1								

## ENGINE - QAS 120 - STANDARD



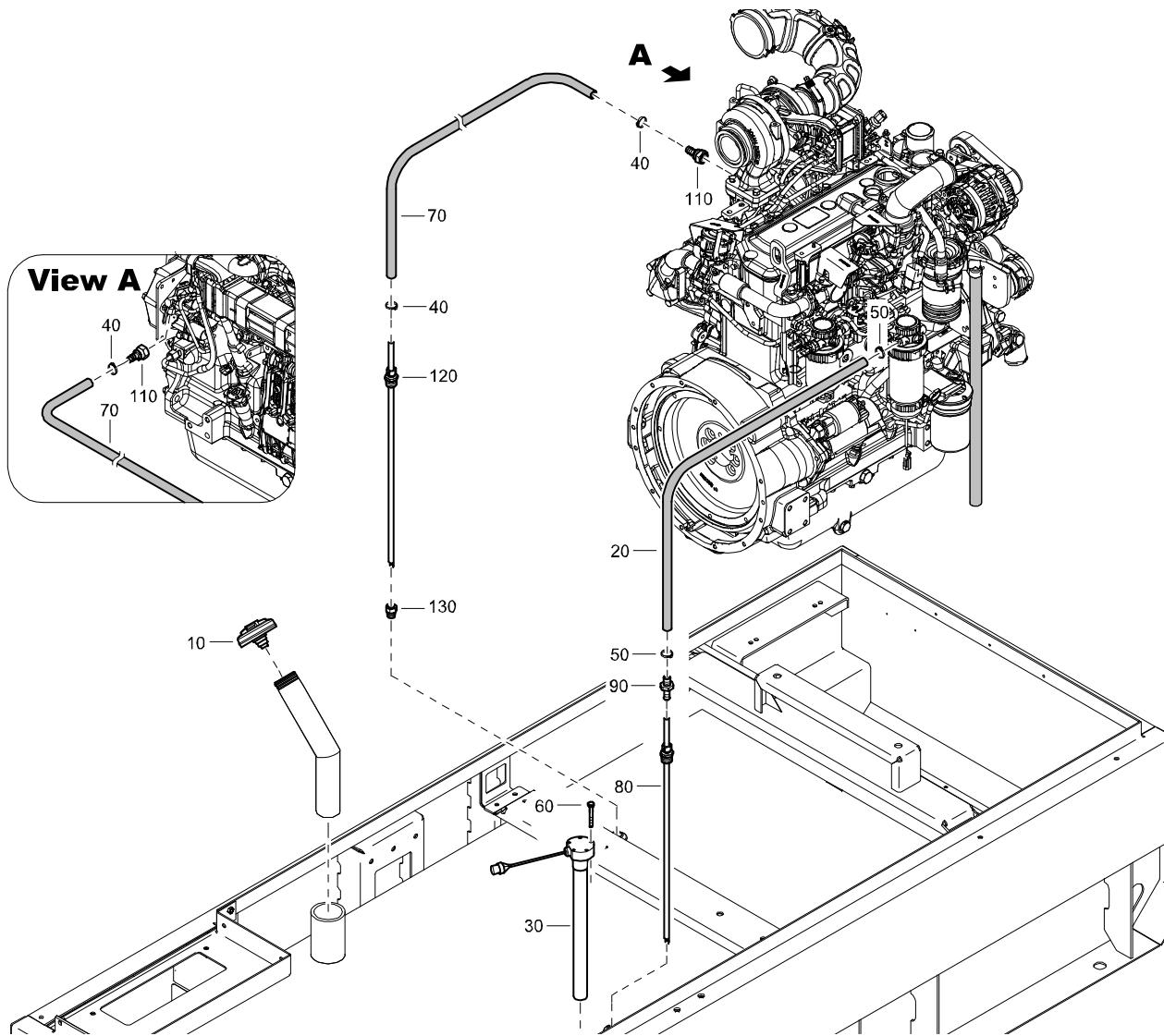
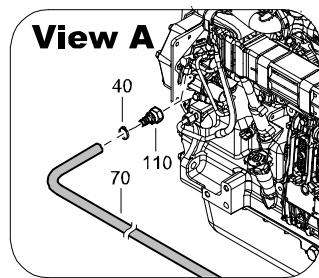
REF	PART NUMBER	DESIGNATION	QTY
10	1310 0723 92	ENGINE	1
20	1310 0724 74	AFTER TREATMENT	1

## FUEL SYSTEM - QAS 70-90 - STANDARD



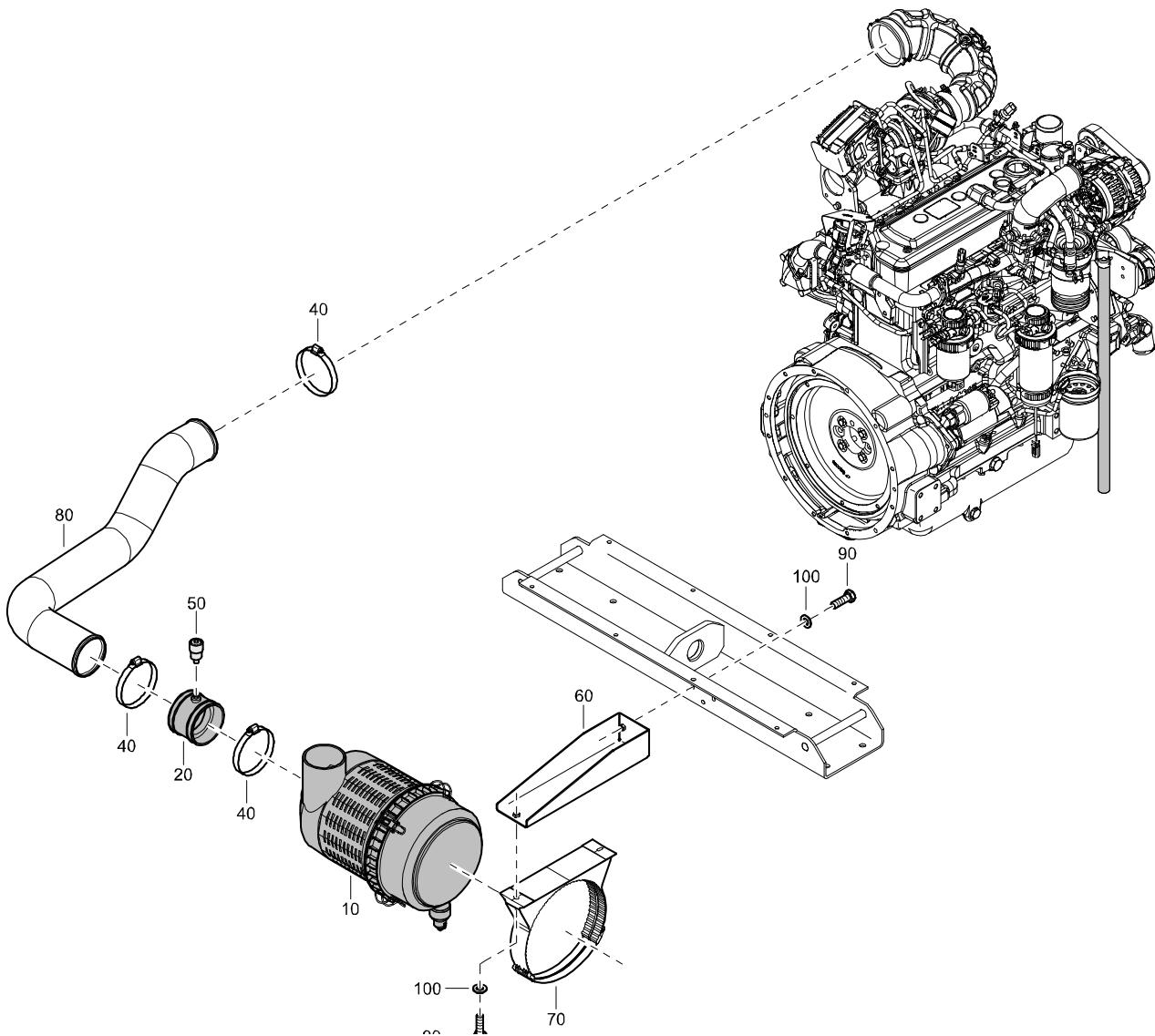
REF	PART NUMBER	DESIGNATION	QTY
10	1615 6947 01	FUEL CAP	1
20	1310 0311 98	HOSE	4
30	1310 0332 68	SENDER	1
40	1310 0323 84	CLAMP	2
50	1310 0365 57	CLAMP	2
60	5530 7681 00	SCREW	5
70	1310 0311 97	HOSE	4
80	1310 4526 00	TUBE	1
90	1310 0724 07	ADAPTER	1
110	1310 6002 26	FITTING	1
120	1310 4951 00	TUBE	1
130	1312 1003 25	BUSHING	1

## FUEL SYSTEM - QAS 120 - STANDARD



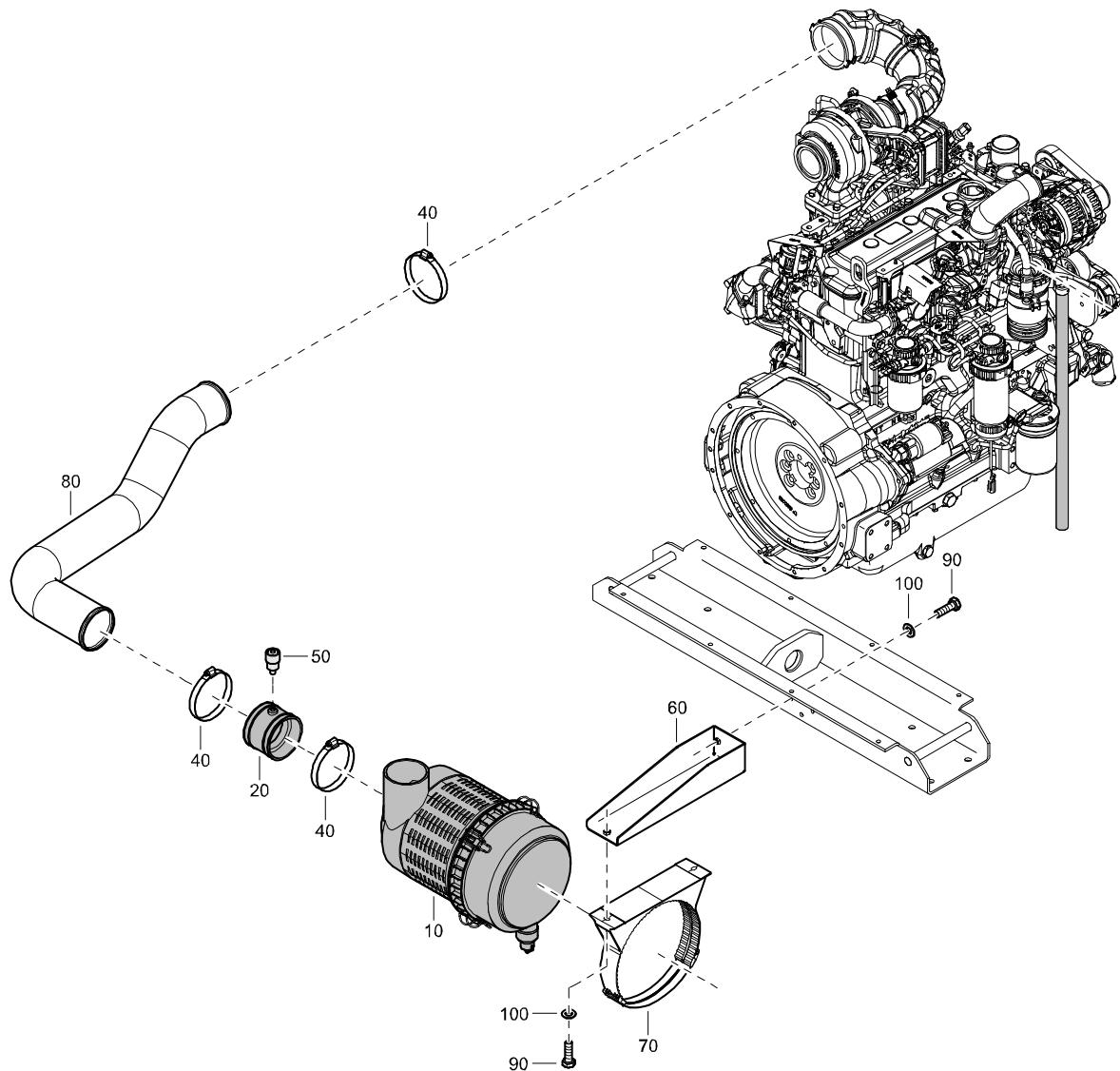
REF	PART NUMBER	DESIGNATION	QTY
10	1615 6947 01	FUEL CAP	1
20	1310 0311 98	HOSE	4
30	1310 0332 68	SENDER	1
40	1310 0323 84	CLAMP	2
50	1310 0365 57	CLAMP	2
60	5530 7681 00	SCREW	5
70	1310 0311 97	HOSE	4
80	1310 4526 00	TUBE	1
90	1310 0724 07	ADAPTER	1
110	1310 6002 26	FITTING	1
120	1310 4951 00	TUBE	1
130	1312 1003 25	BUSHING	1

## AIR INLET - QAS 70-90 - STANDARD



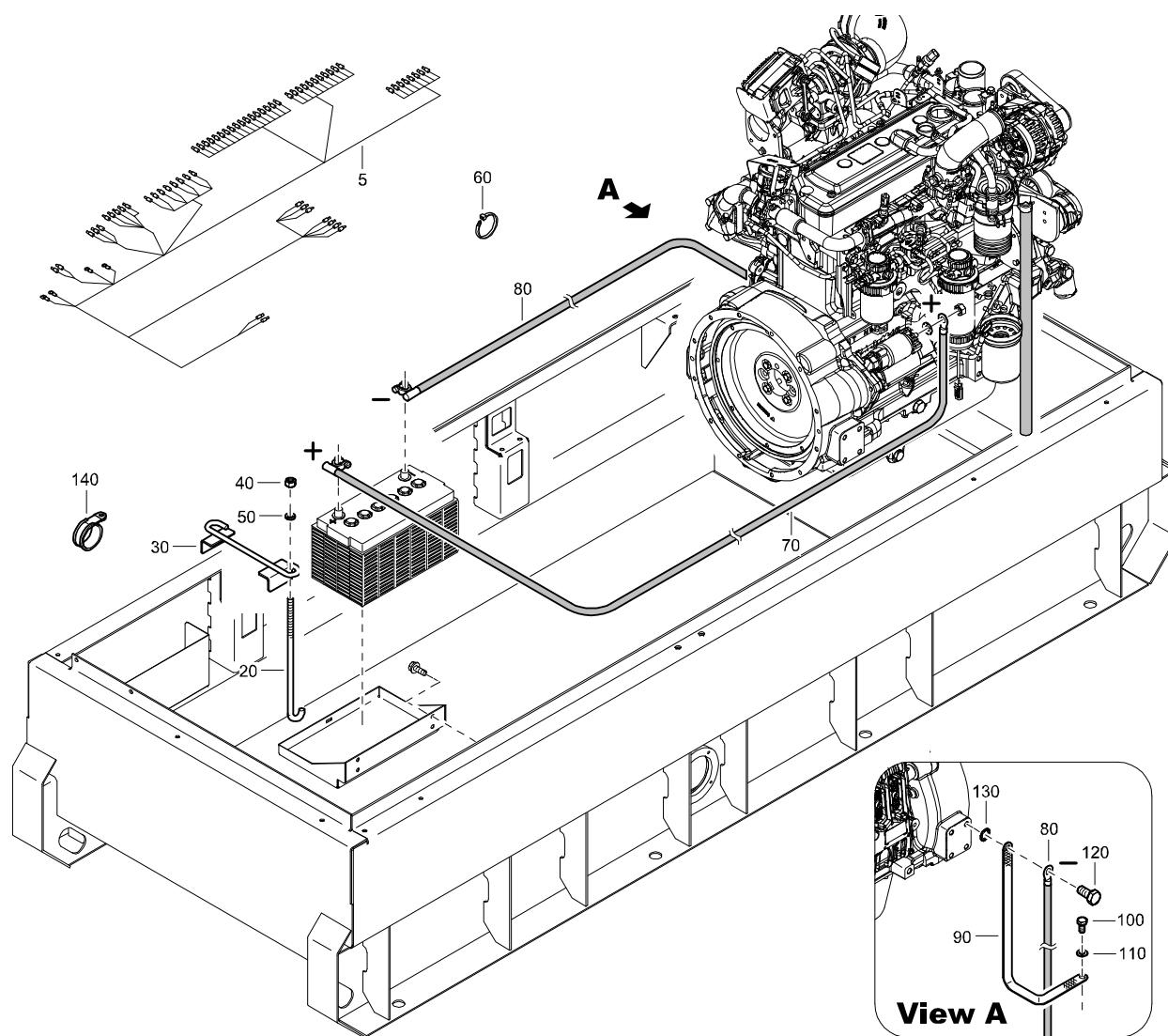
REF	PART NUMBER	DESIGNATION	QTY
10	1615 7820 01	AIR FILTER	1
20	1310 0728 61	SLEEVE	1
40	0347 6100 23	CLAMP	3
50	1310 0355 53	GAUGE	1
60	1310 4981 00	SUPPORT	1
70	1613 7401 00	BRACKET	1
80	1310 4398 02	PIPE	1
90	0147 1325 03	SCREW	5
100	0301 2335 00	WASHER	5

## AIR INLET - QAS 120 - STANDARD



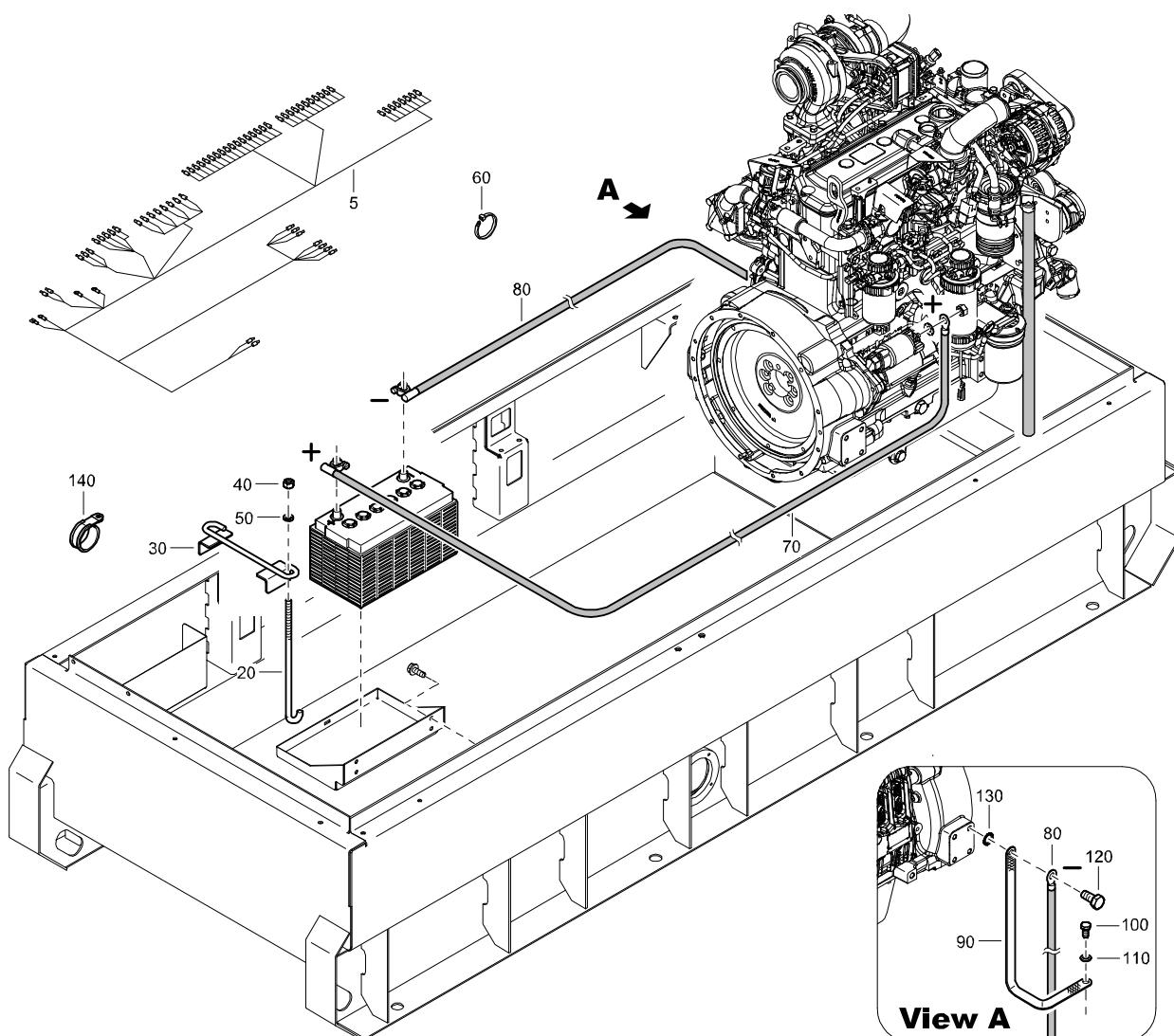
REF	PART NUMBER	DESIGNATION	QTY
10	1615 7820 01	FILTER-AIR	1
20	1310 0728 61	SLEEVE	1
40	0347 6100 23	CLAMP-HOSE	3
50	1310 0355 53	GAUGE-AIR CLE	1
60	1310 4981 00	SUPPORT	1
70	1613 7401 00	BRACKET	1
80	1310 4398 02	PIPE-AIR INLET	1
90	0147 1325 03	SCREW	5
100	0301 2335 00	WASHER	5

## ELECTRICAL SYSTEM - QAS 70-90 - STANDARD



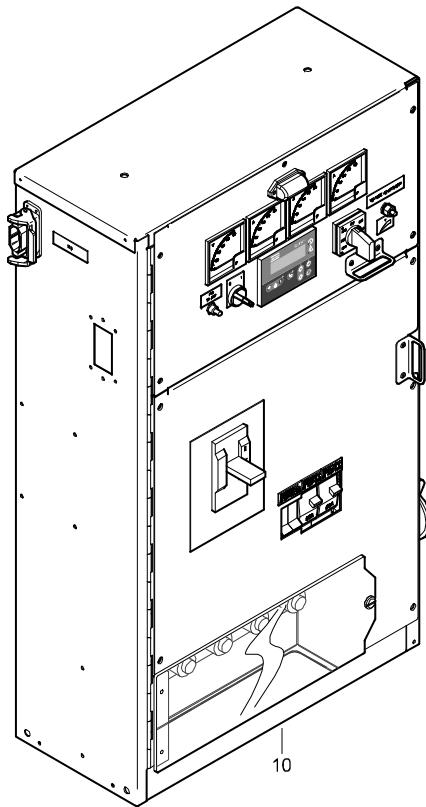
REF	PART NUMBER	DESIGNATION	QTY
5	1310 8546 00	WIRE HARNESS	1
20	1310 0311 67	BOLT-J	2
30	1310 0311 66	CLAMP	1
40	0268 3205 00	NUT	2
50	0333 2225 00	WASHER	2
60	0348 0101 07	CABLE TY	15
70	1310 0730 19	CABLE	1
80	1310 0730 18	CABLE	1
90	1310 4246 00	STRAP	1
100	0147 1320 03	SCREW	1
110	0301 2335 00	WASHER	1
120	0147 1400 03	SCREW	2
130	0333 3237 00	LOCKWASHER	2
140	1310 0325 89	CLAMP	2

## ELECTRICAL SYSTEM - QAS 120 - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
5	1310 8546 00	WIRE HARNESS	1
20	1310 0311 67	BOLT-J	2
30	1310 0311 66	CLAMP	1
40	0268 3205 00	NUT	2
50	0333 2225 00	WASHER	2
60	0348 0101 07	CABLE TY	15
70	1310 0730 19	CABLE	1
80	1310 0730 18	CABLE	1
90	1310 4246 00	STRAP	1
100	0147 1320 03	SCREW	1
110	0301 2335 00	WASHER	1
120	0147 1400 03	SCREW	2
130	0333 3237 00	LOCKWASHER	2
140	1310 0325 89	CLAMP	2

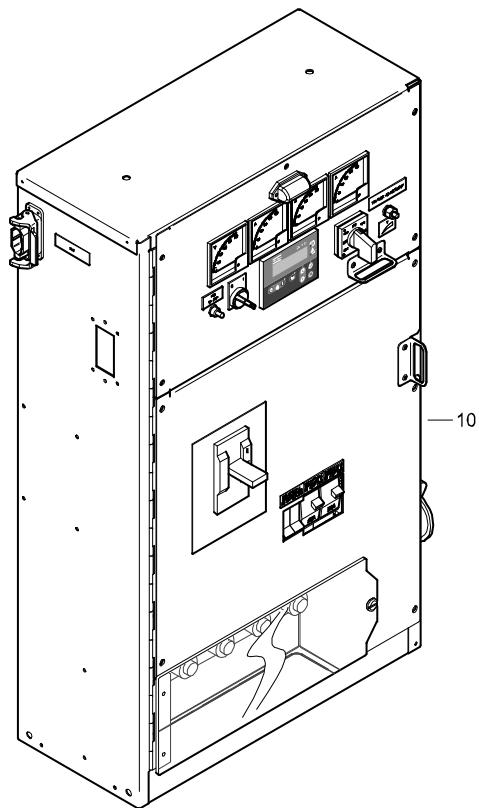
## CUBICLE ASSEMBLY - QAS 70 - STANDARD



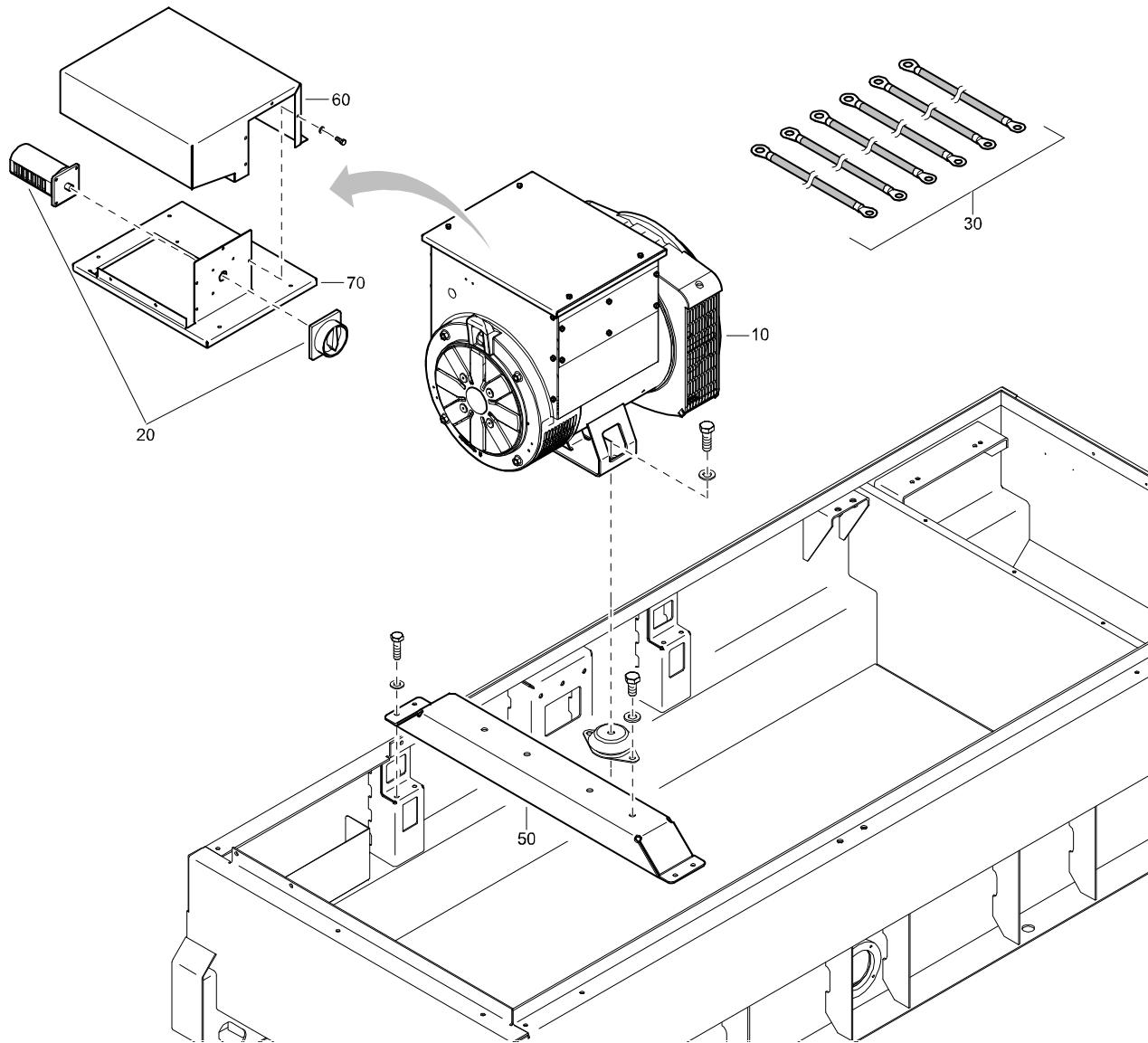
REF	PART NUMBER	DESIGNATION	QTY
10	1310 8014 80	CUBICLE ASSY (For details see page 56)	1

## CUBICLE ASSEMBLY - QAS 90-120 - STANDARD

REF	PART NUMBER	DESIGNATION	QTY
10	1310 8015 80	CUBICLE ASSY (For details see page 58)	1

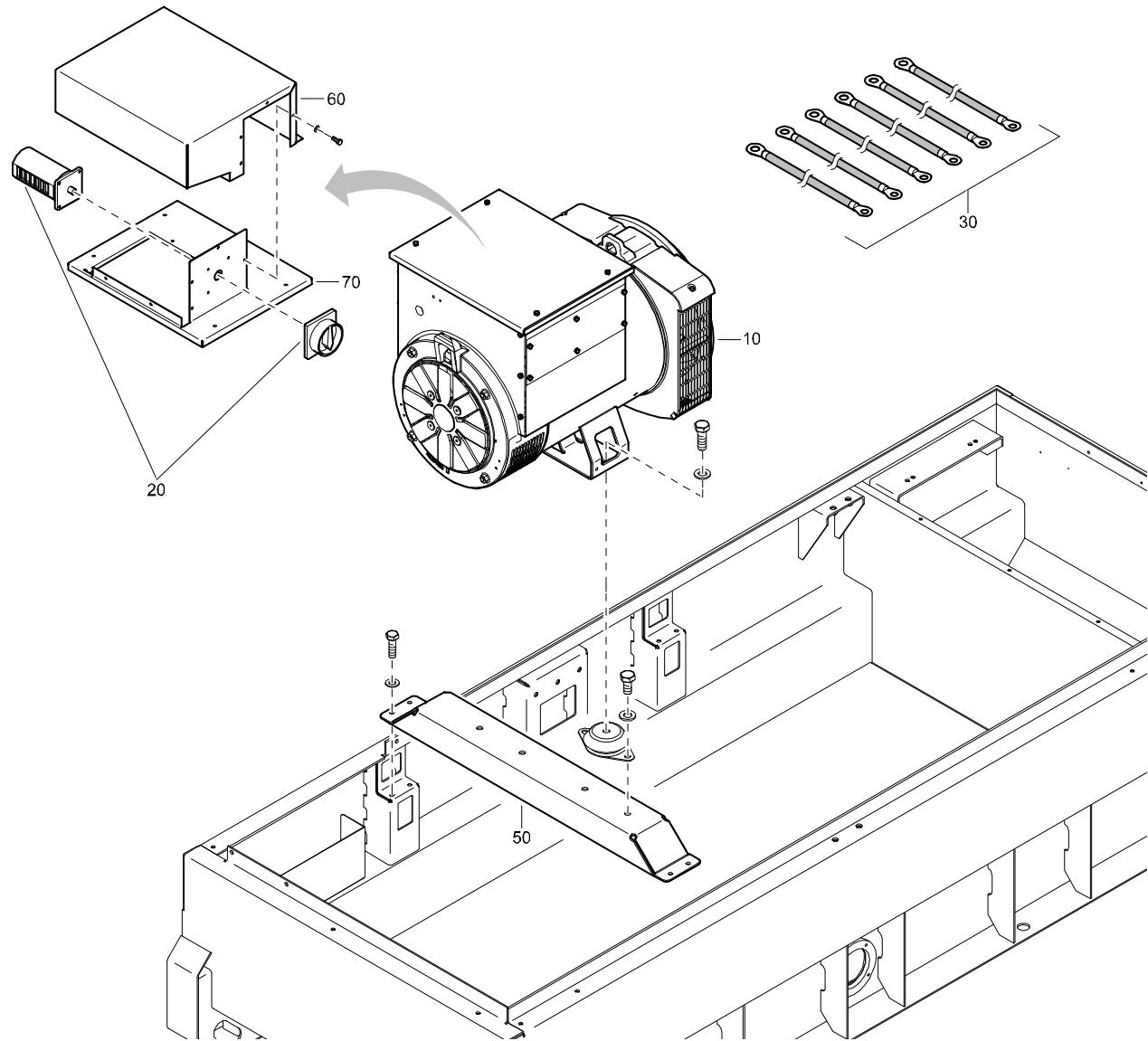


## ALTERNATOR ASSEMBLY - QAS 70 - STANDARD



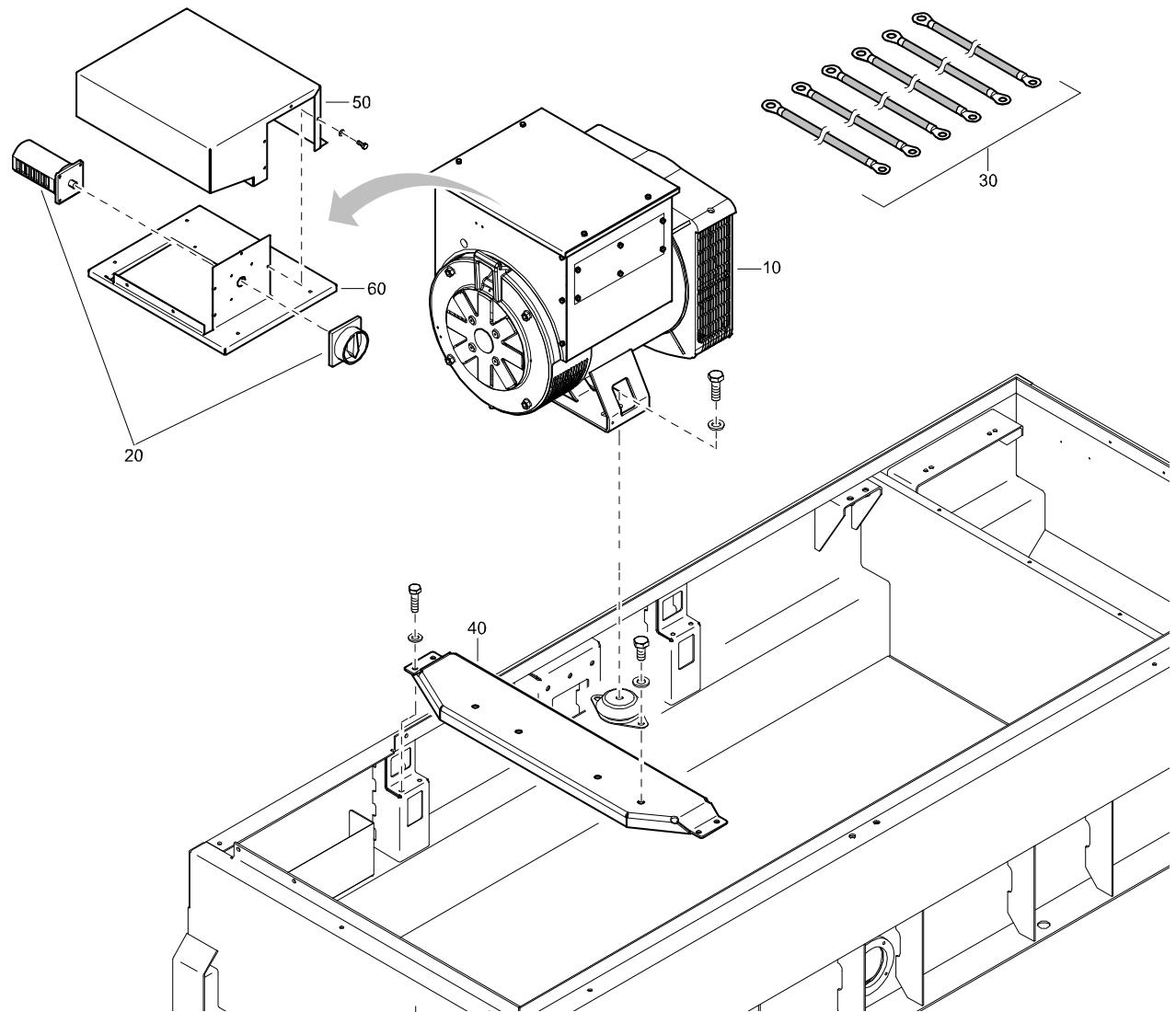
REF	PART NUMBER	DESIGNATION	QTY
10	1310 6066 22	ALTERNATOR	1
20	1089 9378 25	SWITCH	1
30	1310 4642 50	WIRE SET	1
50	1310 4413 00	SUPPORT	1
60	1310 8086 00	PANEL	1
70	1310 8087 00	COVER	1

## ALTERNATOR ASSEMBLY - QAS 90 - STANDARD



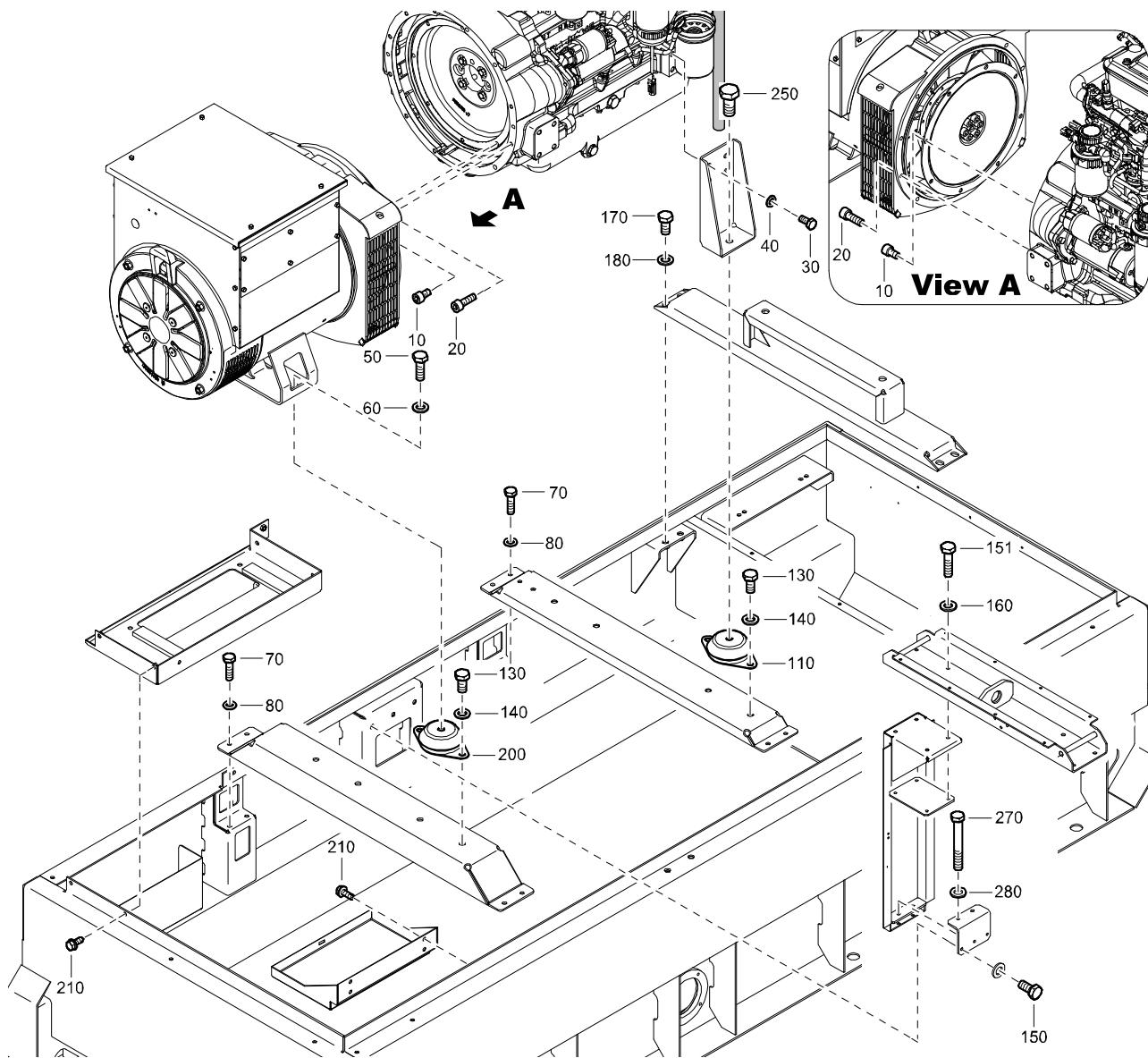
REF	PART NUMBER	DESIGNATION	QTY
10	1310 6066 23	ALTERNATOR	1
20	1089 9378 25	SWITCH	1
30	1310 4642 50	WIRE SET	1
50	1310 4413 00	SUPPORT	1
60	1310 8086 00	PANEL	1
70	1310 8087 00	COVER	1

## ALTERNATOR ASSEMBLY - QAS 120 - STANDARD



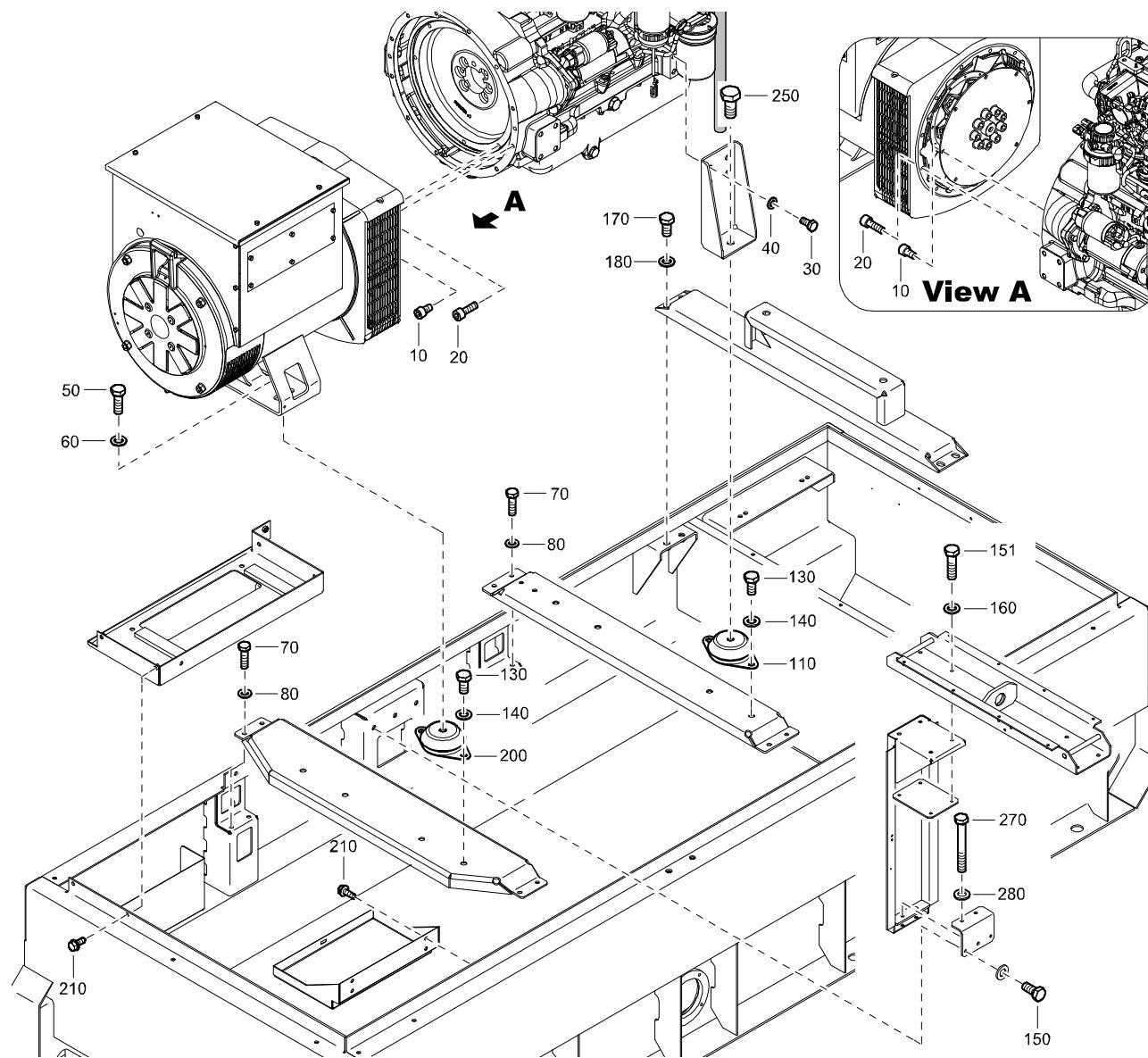
REF	PART NUMBER	DESIGNATION	QTY
10	1310 6066 24	ALTERNATOR	1
20	1089 9378 26	SWITCH	1
30	1310 4642 50	WIRE SET	1
40	1310 5003 00	SUPPORT	1
50	1310 8088 00	PANEL	1
60	1310 8089 00	COVER	1

## FRAME AND MOUNTS - QAS 70-90 - STANDARD



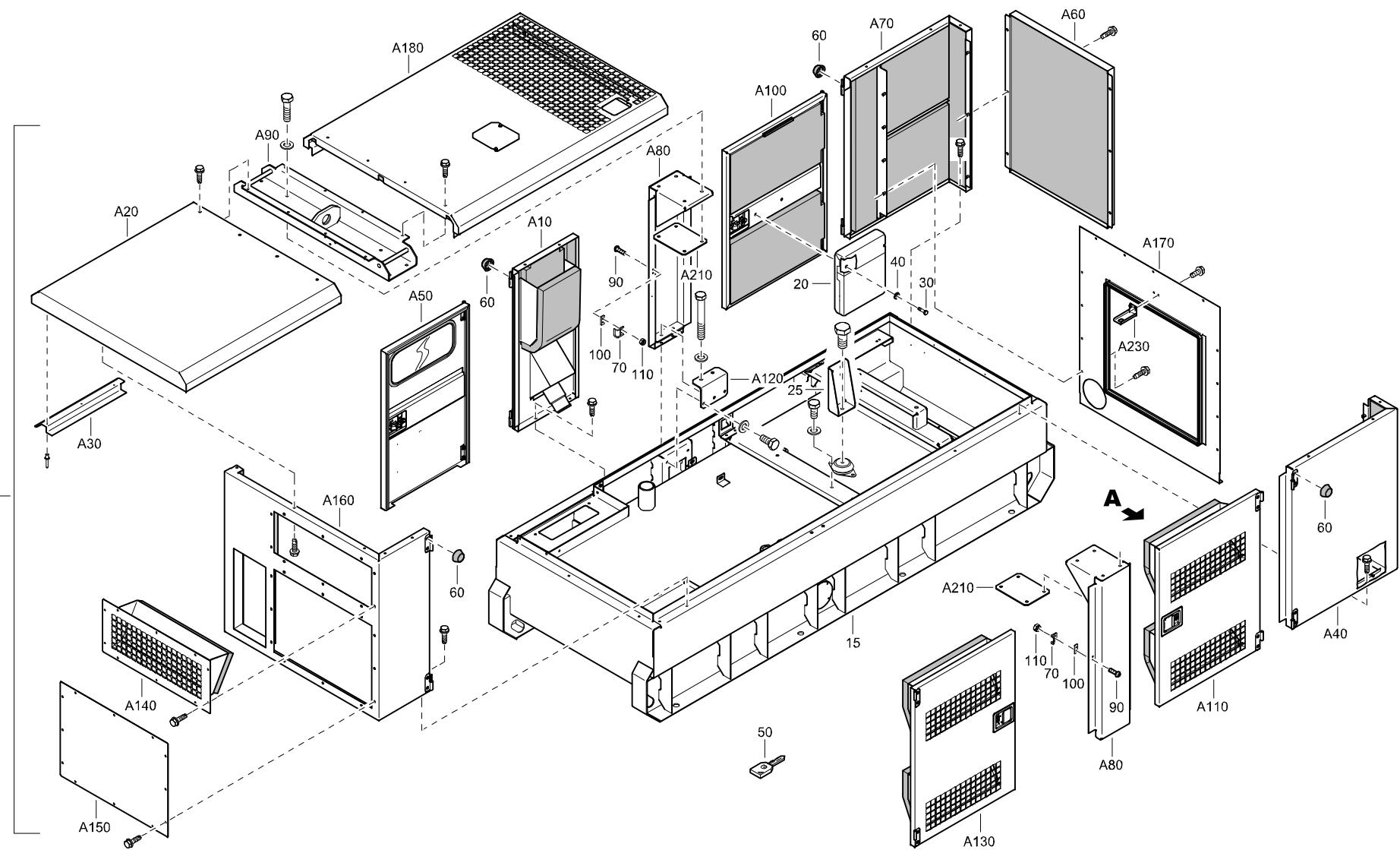
REF	PART NUMBER	DESIGNATION	QTY
10	0211 5287 00	SCREW	8
20	0211 1364 00	SCREW	12
30	0147 1400 03	SCREW	6
40	0301 2358 00	WASHER	6
50	0147 1401 03	SCREW	6
60	0301 2358 00	WASHER	6
70	0147 1363 03	SCREW	8
80	0301 2344 00	WASHER	8
110	1613 6752 03	RUBBER	2
130	0147 1400 03	SCREW	8
140	0301 2358 00	WASHER	8
150	0147 1398 03	SCREW	6
151	0147 1404 03	SCREW	8
160	0301 2358 00	WASHER	4
170	0147 1400 03	SCREW	6
180	0301 2358 00	WASHER	6
200	1619 5044 00	MOUNT	2
210	1619 2766 00	SCREW	5
250	0147 1476 03	SCREW	4
270	0147 1413 03	SCREW	4
280	0301 2358 00	WASHER	4

## FRAME AND MOUNTS - QAS 120 - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
10	0211 5287 00	SCREW	8
20	0211 1364 00	SCREW	12
30	0147 1400 03	SCREW	6
40	0301 2358 00	WASHER	6
50	0147 1401 03	SCREW	6
60	0301 2358 00	WASHER	6
70	0147 1363 03	SCREW	8
80	0301 2344 00	WASHER	8
110	1613 6752 03	RUBBER	2
130	0147 1400 03	SCREW	8
140	0301 2358 00	WASHER	8
150	0147 1398 03	SCREW	6
151	0147 1404 03	SCREW	8
160	0301 2358 00	WASHER	4
170	0147 1400 03	SCREW	6
180	0301 2358 00	WASHER	6
200	1619 5044 00	MOUNT	2
210	1619 2766 00	SCREW	5
250	0147 1476 03	SCREW	4
270	0147 1413 03	SCREW	4
280	0301 2358 00	WASHER	4

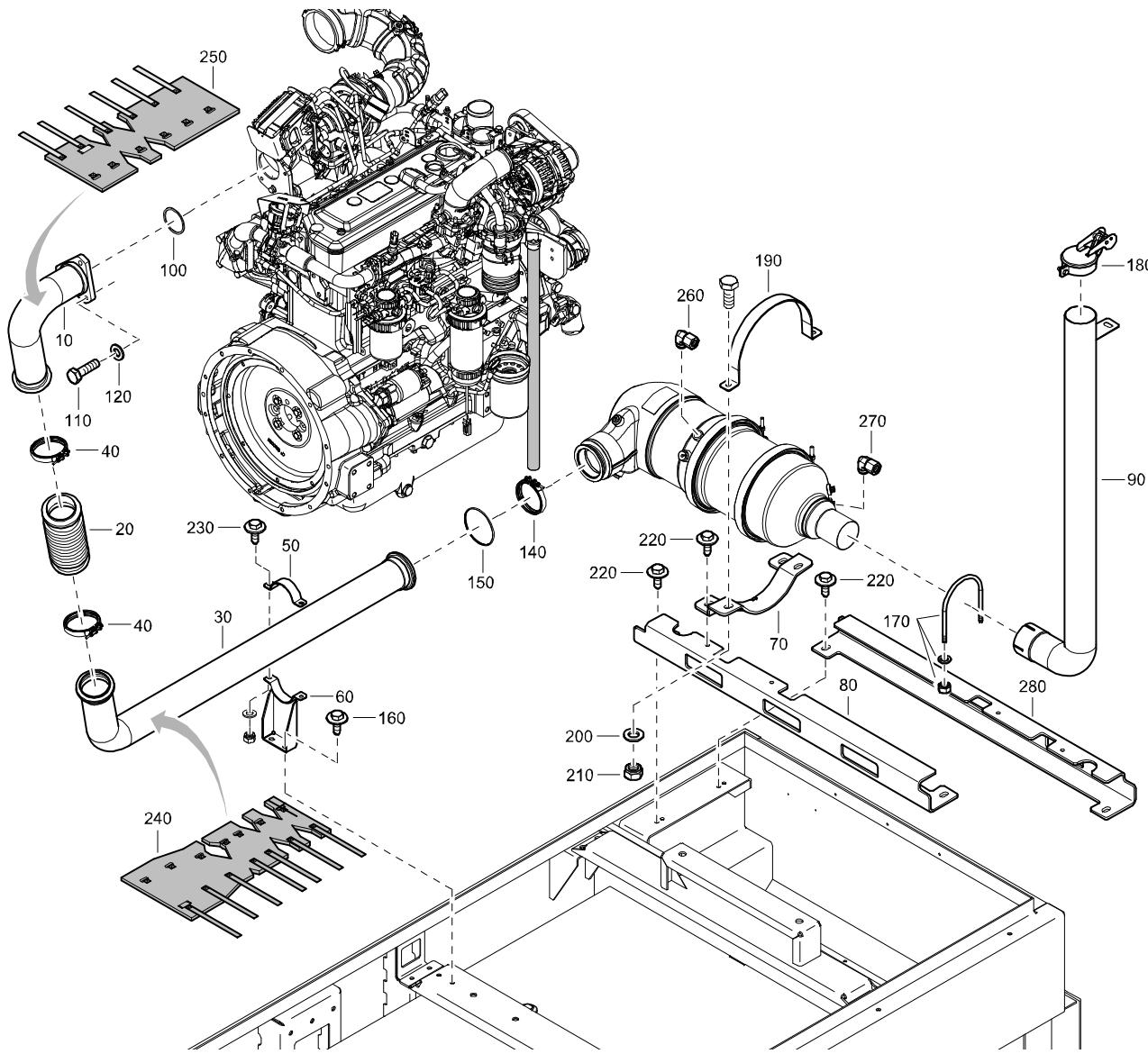
## BODYWORK - STANDARD



## BODYWORK - STANDARD

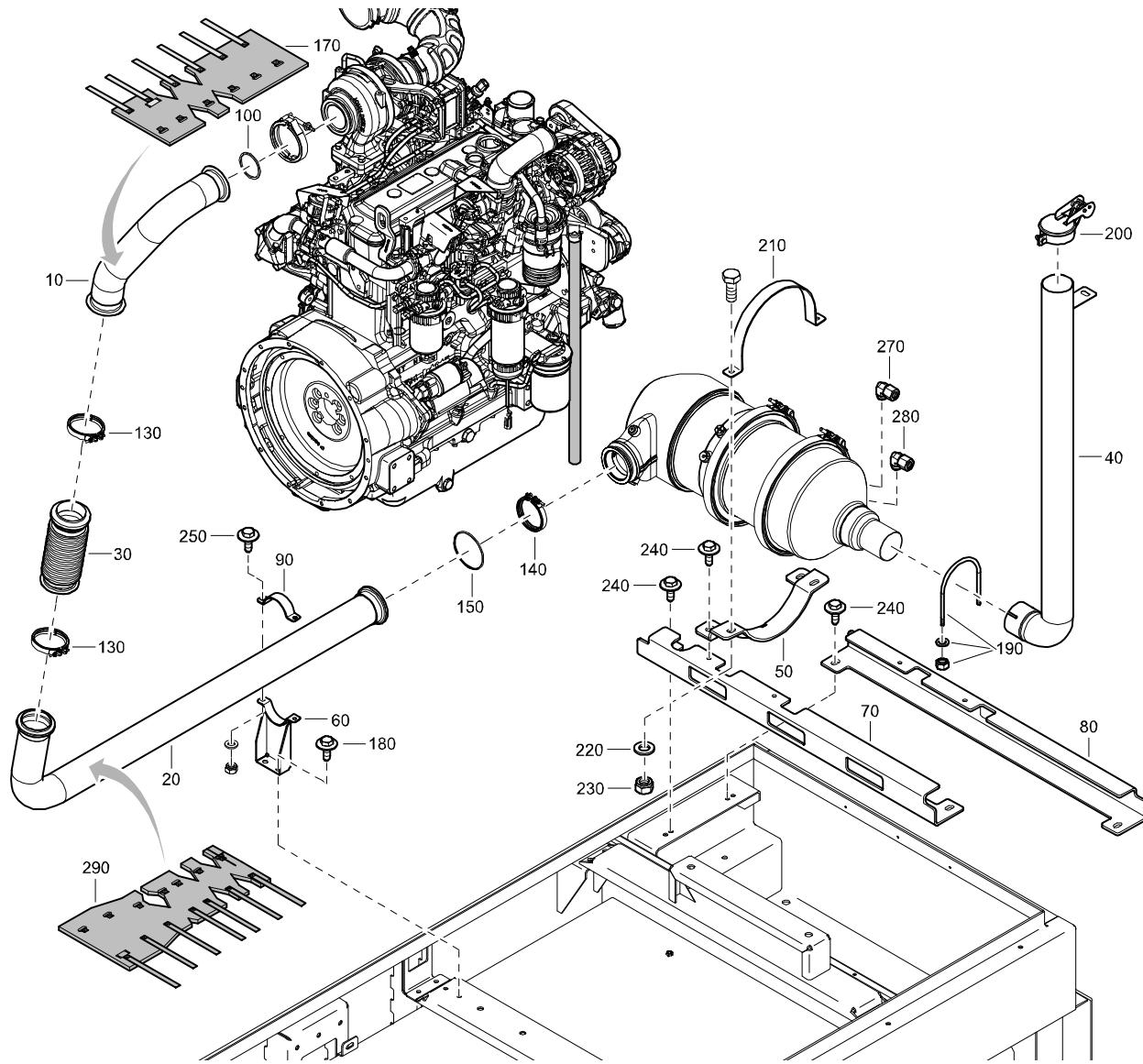
REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 0714 00	CANOPY SET	1	60	1613 3672 00	CAP-BOLT PROTECT	8				
•A10	1310 0800 80	PANEL	1	70	1604 5031 00	BRACKET	3				
•A20	1310 4371 80	PANEL  (For details see page 60)	1	90	0215 0003 89	SCREW	8				
•A30	1310 4373 01	PLATE	1	100	1310 4019 00	SPACER	4				
•A40	1310 4373 80	PANEL ASSY  (For details see page 61)	1	110	0291 1108 00	LOCKNUT	8				
•A50	1310 4377 80	DOOR  (For details see page 62)	1								
•A60	1310 4378 80	PANEL  (For details see page 65)	1								
•A70	1310 8692 80	PANEL ASSY  (For details see page 70)	1								
•A80	1310 4408 00	SIDE SUPPORT	2								
•A90	1310 8694 00	BEAM	1								
•A100	1310 4416 80	DOOR  (For details see page 63)	1								
•A110	1310 4417 80	DOOR  (For details see page 64)	1								
•A120	1310 4478 00	BRACKET	2								
•A130	1310 5004 80	DOOR  (For details see page 66)	1								
•A140	1310 5006 80	PANEL  (For details see page 67)	1								
•A150	1310 5007 80	PANEL  (For details see page 68)	1								
•A160	1310 5008 80	PANEL ASSY  (For details see page 69)	1								
•A170	1310 6971 80	PANEL  (For details see page 71)	1								
•A180	1310 6976 80	PANEL ASSY  (For details see page 72)	1								
•A210	1310 4480 00	PLATE	2								
•A230	1310 6980 00	BRACKET	1								
15	1310 8542 80	FRAME ASSY  (For details see page 51)	1								
20	1310 0356 39	HOLDER	1								
25	1310 4414 00	MOUNT-ENGINE	2								
30	0144 3206 03	SCREW	2								
40	0301 2327 00	WASHER	2								
50	1615 7271 00	KEY	2								

## EXHAUST - QAS 70-90 - STANDARD



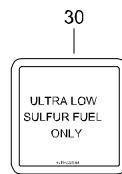
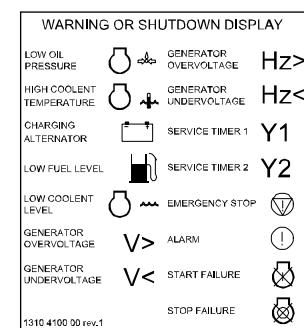
REF	PART NUMBER	DESIGNATION	QTY
10	1310 5013 00	PIPE	1
20	1310 0728 66	PIPE	1
30	1310 5014 00	PIPE	1
40	1310 0728 70	CLAMP	2
50	1310 6982 00	CLAMP	1
60	1310 6981 00	BRACKET	1
70	1310 6974 01	BRACKET	2
80	1310 6973 01	SUPPORT	1
90	1310 5015 02	EXHAUST STACK	1
100	1310 0728 67	GASKET	1
110	0147 1363 15	SCREW	3
120	0301 2344 00	WASHER	3
140	1310 0728 69	CLAMP	1
150	1310 0728 68	SEAL RING	1
160	1615 5664 00	BOLT	1
170	1310 0355 61	CLAMP-SADDLE	1
180	1615 7214 00	CAP-RAIN	1
190	1310 0732 02	STRAP	2
200	0301 2358 00	WASHER	4
210	0291 1185 01	NUT	4
220	1615 5664 00	BOLT	8
230	1615 5664 00	BOLT	1
240	1310 0734 64	BLANKET	1
250	1310 0734 65	BLANKET	1
260	1310 0723 41	ELBOW	1
270	1310 0723 40	ELBOW	1
280	1310 6973 02	SUPPORT	0

## EXHAUST - QAS 120 - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
10	1310 5010 00	EXHAUST	1
20	1310 5014 00	PIPE	1
30	1310 0728 66	PIPE	1
40	1310 5015 01	EXHAUST	1
50	1310 6975 01	SUPPORT	2
60	1310 6981 00	BRACKET	1
70	1310 6973 03	BRACKET	1
80	1310 6973 04	BRACKET	1
90	1310 6982 00	CLAMP	1
100	1310 0728 67	GASKET	1
130	1310 0728 70	CLAMP	3
140	1310 0728 69	CLAMP	1
150	1310 0728 68	SEAL RING	1
170	1310 0734 66	BLANKET	1
180	1615 5664 00	BOLT	1
190	1310 0355 61	CLAMP	1
200	1615 7214 00	CAP-RAIN	1
210	1310 0730 56	STRAP	2
220	0301 2358 00	WASHER	4
230	0291 1185 01	NUT	4
240	1615 5664 00	BOLT	8
250	1615 5664 00	BOLT	1
270	1310 0723 41	ELBOW	2
280	1310 0723 40	ELBOW	1
290	1310 0734 65	BLANKET	1

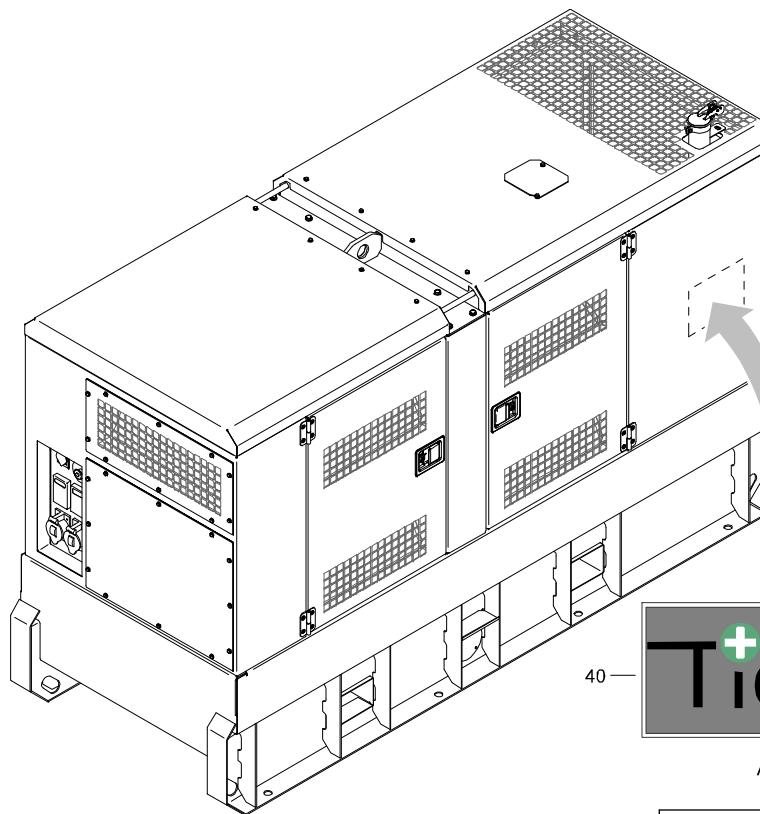
## MARKINGS - STANDARD



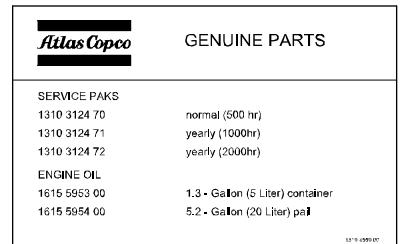
A80



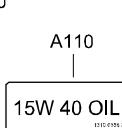
A50



A50



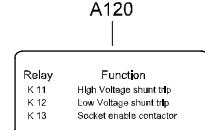
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A110



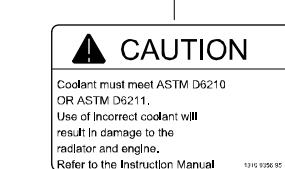
A140



A120



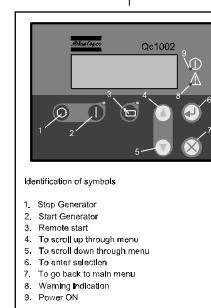
A60



A100



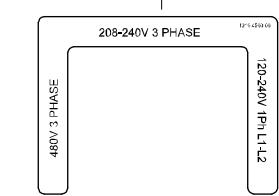
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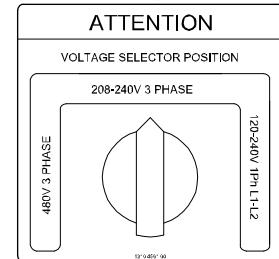
A20



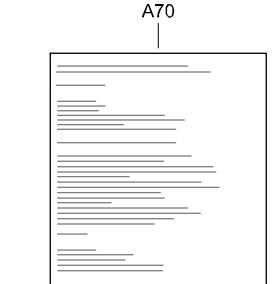
A90



A40

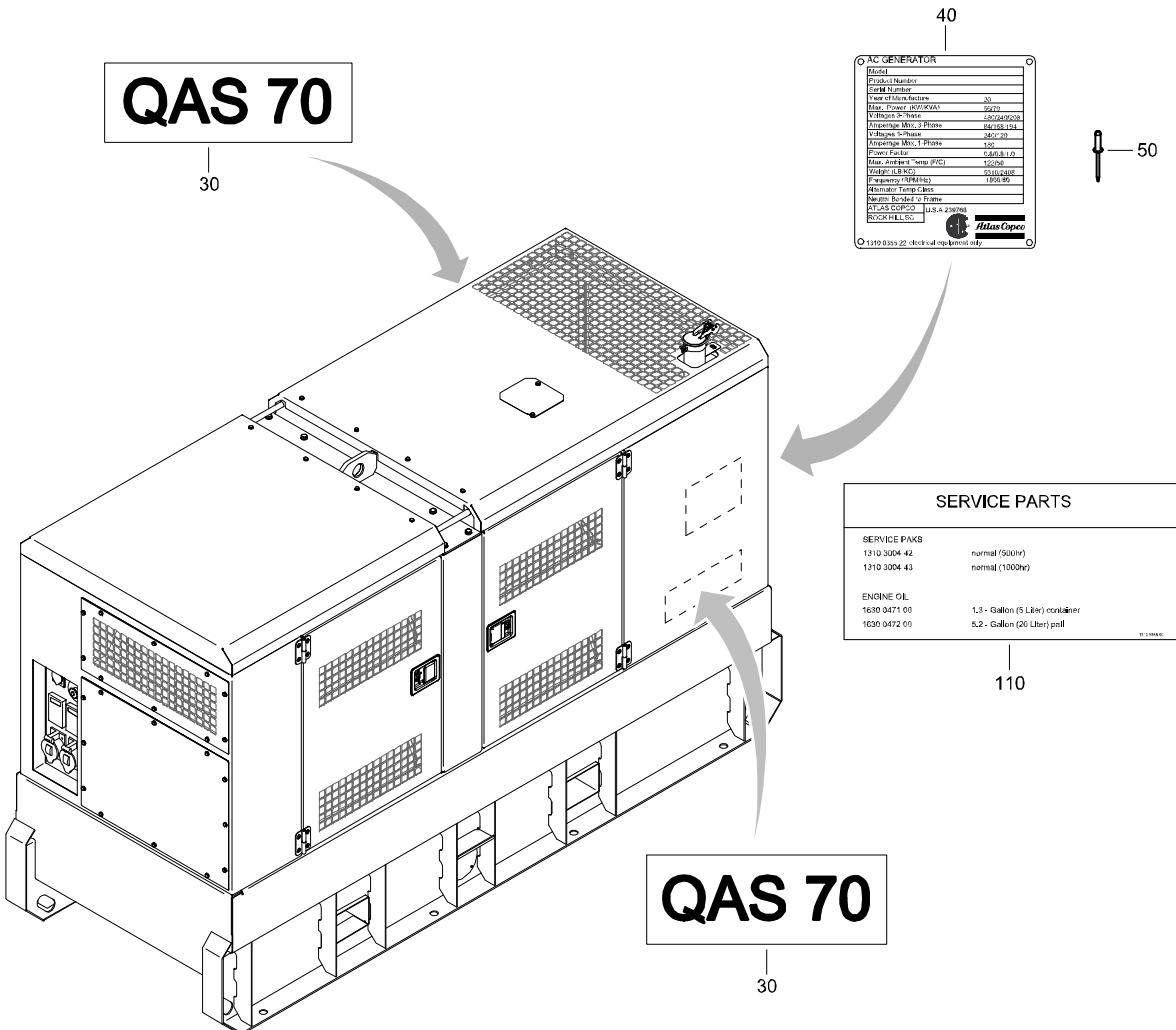


A10



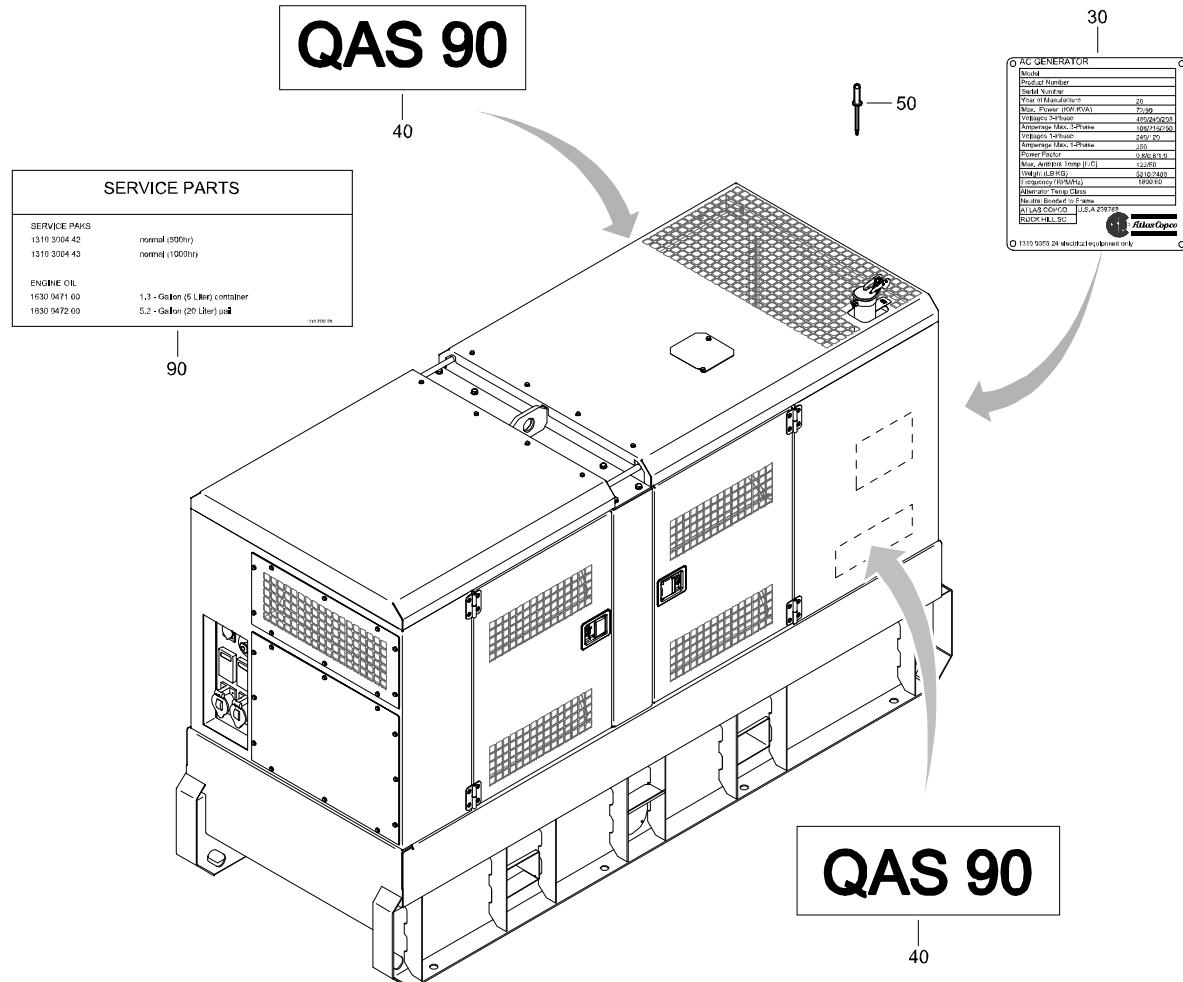
## MARKINGS - STANDARD

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 4557 00	LABEL SHEET	1								
•A10	1310 4561 00	LABEL	1								
•A20	1310 4558 00	LABEL	1								
•A30	1310 4559 00	LABEL	1								
•A40	1310 4560 00	LABEL	1								
•A50	1310 0353 72	LABEL	2								
•A60	1310 3112 36	LABEL	1								
•A70	1310 4946 00	LABEL	1								
•A80	1310 4100 00	LABEL	1								
•A90	1310 0356 37	LABEL	1								
•A100	1310 0356 95	LABEL	1								
•A110	1310 0356 38	LABEL	1								
•A120	1310 3124 68	LABEL	1								
•A130	1310 3124 67	LABEL	1								
•A140	1310 0313 24	LABEL	1								
20	1310 0723 22	LABEL	1								
30	8915 0021 80	LABEL	1								
40	1310 6002 25	LABEL	2								

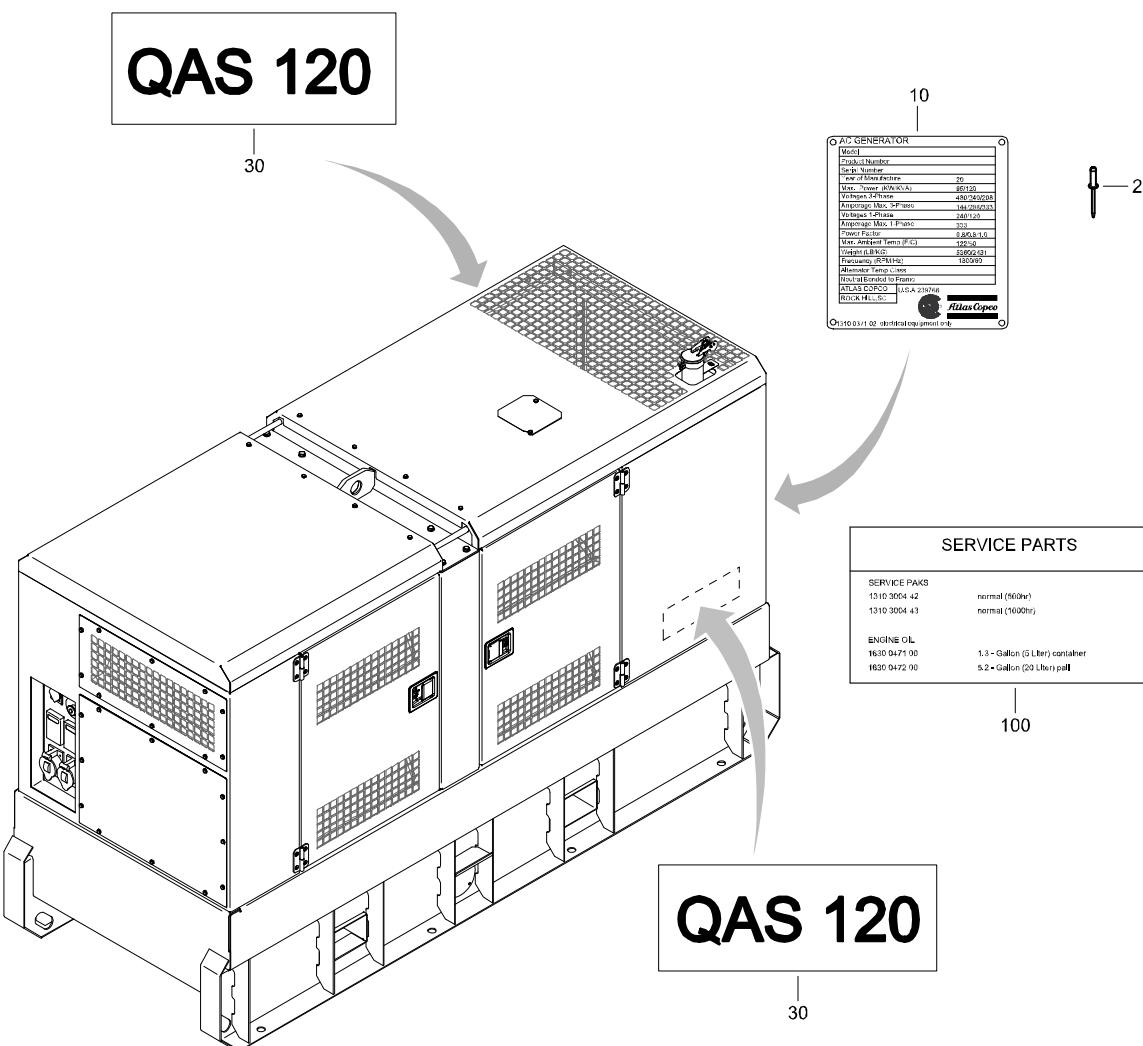


REF	PART NUMBER	DESIGNATION	QTY
30	1310 4703 00	LABEL	2
40	1310 0355 22	DATA PLATE	1
50	1310 0361 69	RIVET	4
110	1310 8889 00	LABEL	1

## PRINTED MATERIAL - QAS 90 - STANDARD

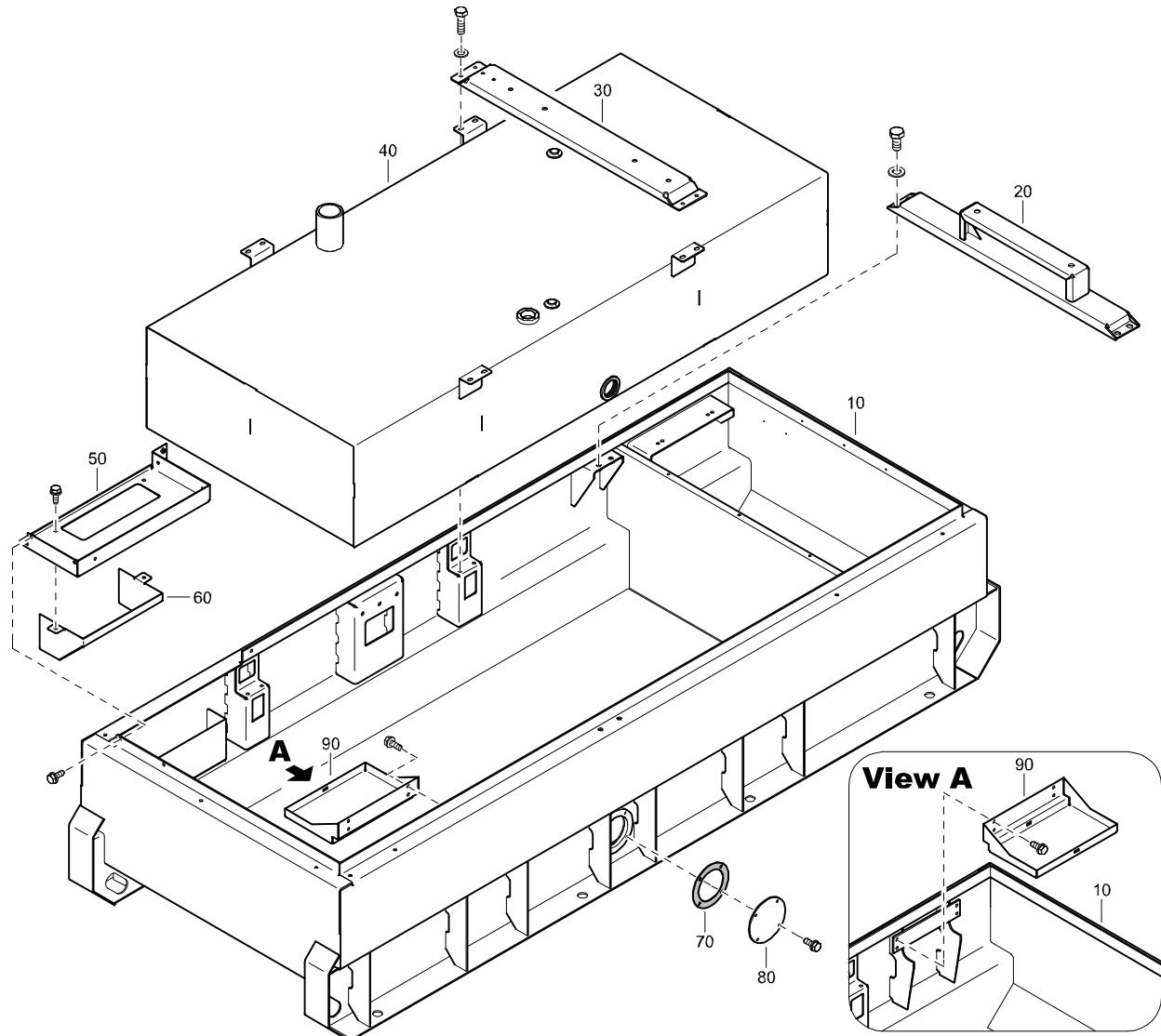


REF	PART NUMBER	DESIGNATION	QTY
30	1310 0355 24	DATA PLATE	1
40	1310 4171 00	LABEL	2
50	1310 0361 69	RIVET	4
90	1310 8889 00	LABEL	1



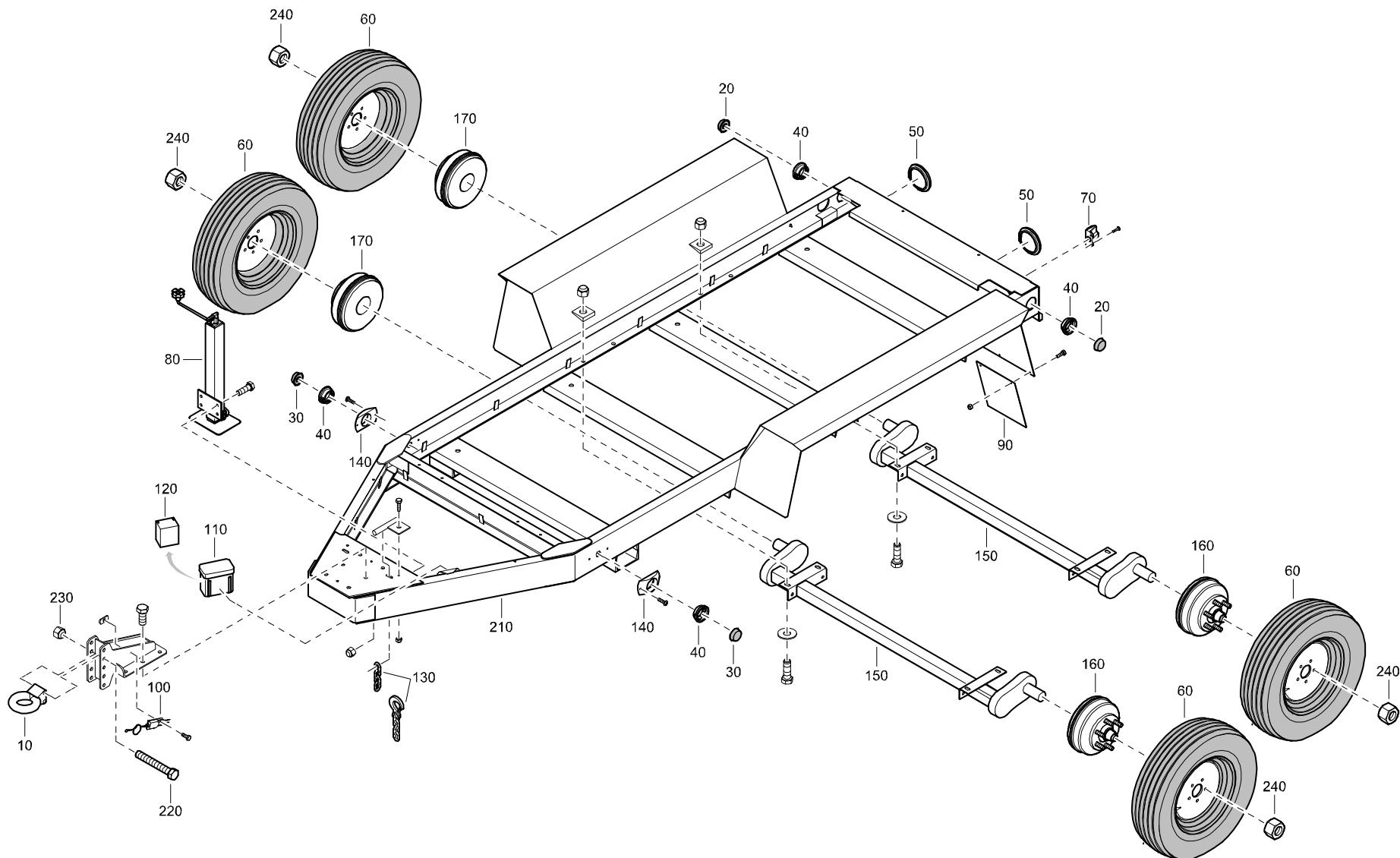
REF	PART NUMBER	DESIGNATION	QTY
10	1310 0371 02	DATA PLATE	1
20	1310 0361 69	RIVET	4
30	1310 4170 00	LABEL	2
100	1310 8889 00	LABEL	1

## FRAME ASSEMBLY - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
-	1310 8542 80	FRAME ASSEMBLY (From page 42)	
•10	1310 8542 00	FRAME	1
•20	1310 6979 00	BEAM	1
•30	1310 4050 00	SUPPORT	1
•40	1310 8551 00	TANK-FUEL	1
•50	1310 8543 00	BRACKET	1
•60	1310 8544 00	BRACKET	1
•70	1310 4637 00	GASKET	1
•80	1310 4857 00	COVER	1
•90	1310 8701 00	SUPPORT	0

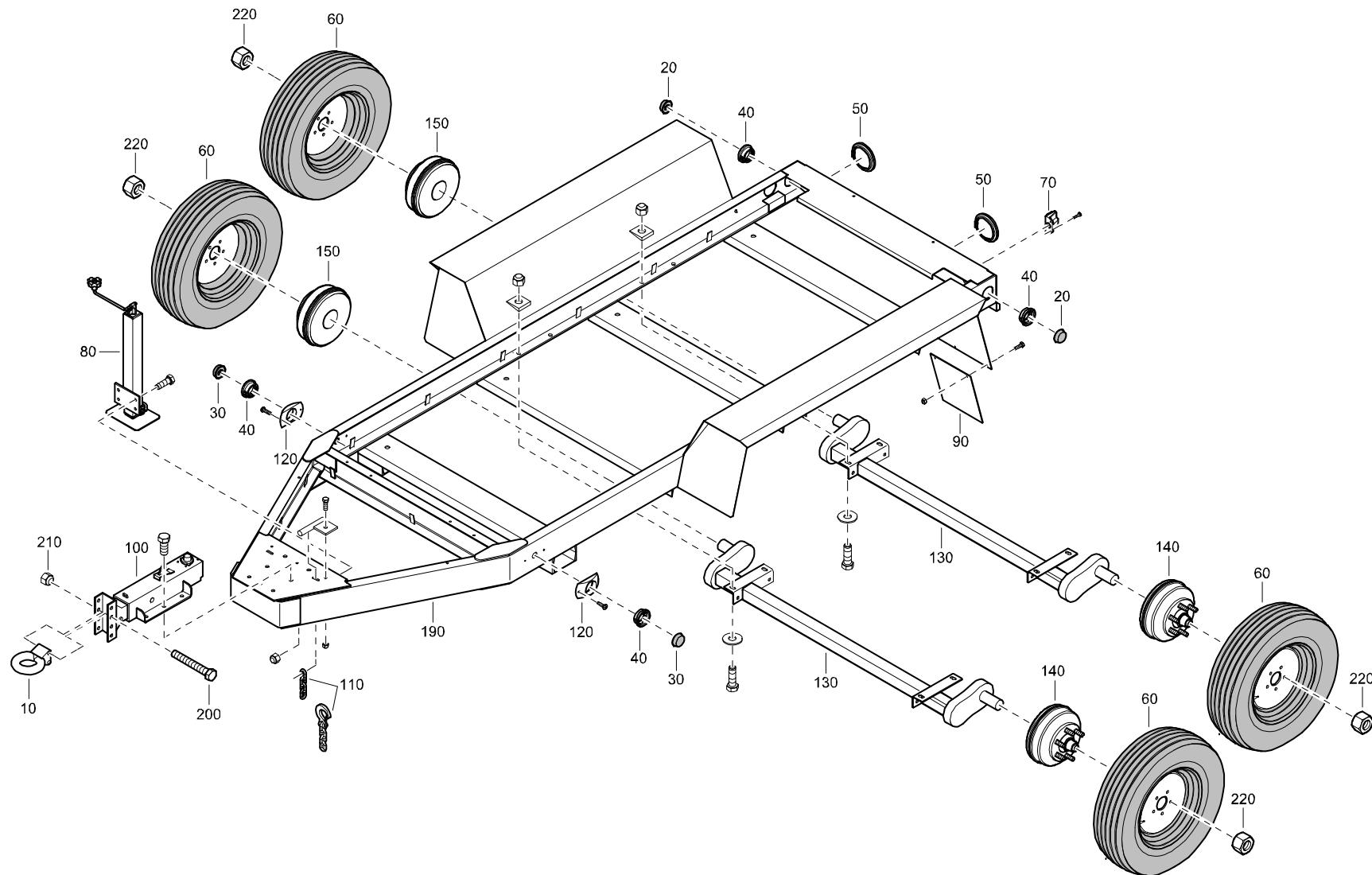
## TRAILER ASSEMBLY - ELETRIC BRAKE - STANDARD



## TRAILER ASSEMBLY - ELETRIC BRAKE- STANDARD

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 0346 73	3RD TOWING EYE	1								
20	1310 0347 42	RED REFLECTOR	2								
30	1310 0347 43	YELLOW REFLECTOR	2								
40	1310 0346 89	LIGHT GROMMET	4								
50	1310 0347 45	STOP TURN TAIL LAMP	2								
60	1310 0348 56	TIRE & WHEEL ASSY	4								
70	1310 0347 33	LICENCE PLATE LAMP	1								
80	1310 0347 11	JACK	1								
90	1310 0347 65	MUD FLAP	1								
100	1310 0348 30	BREAKAWAY SWITCH	1								
110	1310 0351 44	BATTERY BOX	1								
120	1310 0351 45	SEALED BATTERY	1								
130	1310 0346 45	SAFETY CHAIN	2								
140	1310 0362 73	LIGHT MOUNT	2								
150	1310 0362 40	AXLE ASSY EB	2								
160	1310 0362 34	BRAKE ASSY	2								
170	1310 0362 33	BRAKE ASSY	2								
210	1310 0732 66	FRAME	1								
220	1310 0733 18	SCREW HEX	2								
230	1310 0733 17	NUT	2								
240	1310 0732 74	LUG NUT	20								

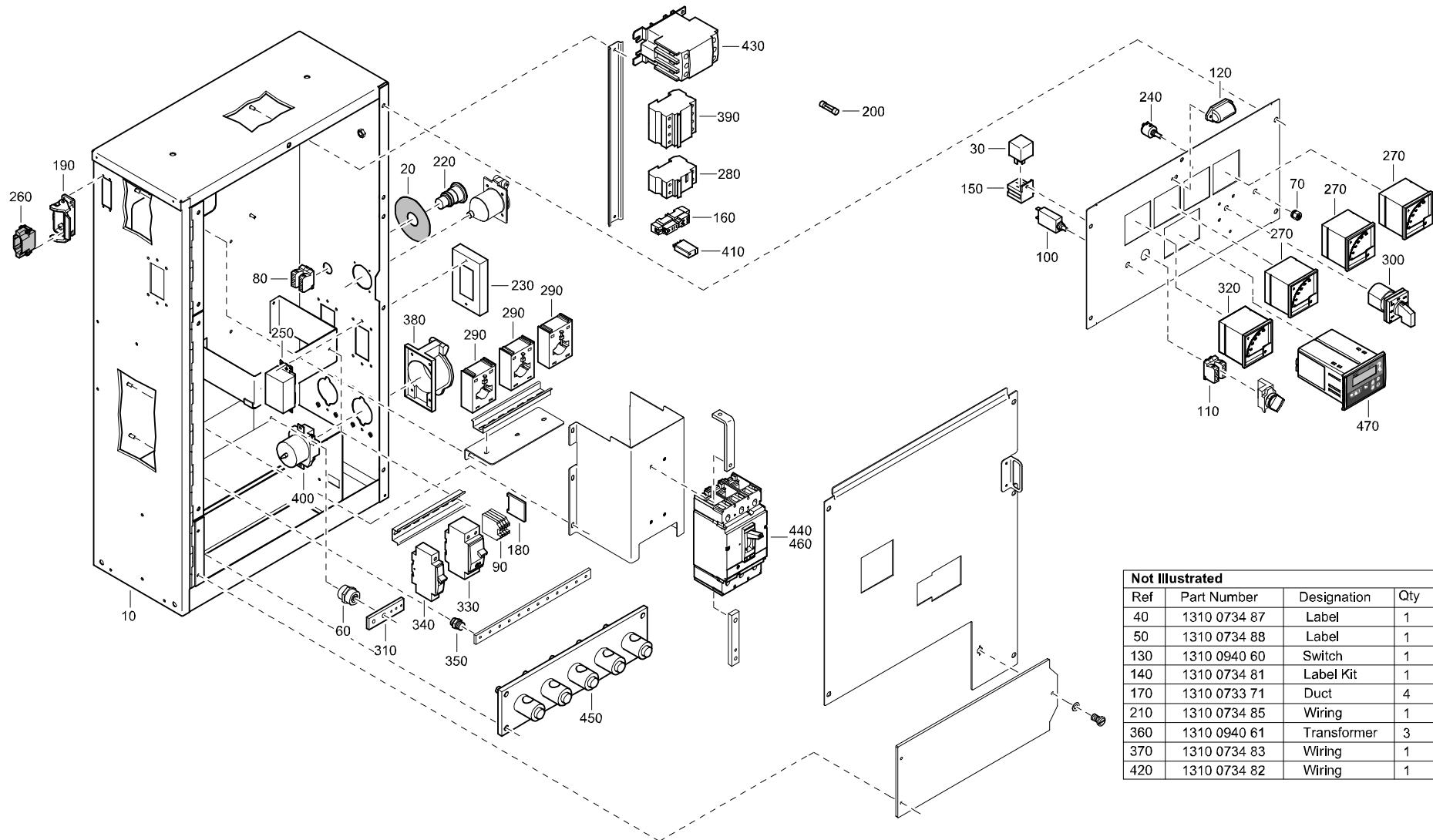
## TRAILER ASSEMBLY -HYDRAULIC BRAKE- STANDARD



**TRAILER ASSEMBLY -HYDRAULIC BRAKE - STANDARD**

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
10	1310 0346 73	3RD TOWING EYE	1								
20	1310 0347 42	RED REFLECTOR	2								
30	1310 0347 43	YELLOW REFLECTOR	2								
40	1310 0346 89	LIGHT GROMMET	4								
50	1310 0347 45	STOP TURN TAIL LAMP	2								
60	1310 0348 56	TIRE & WHEEL ASSY	4								
70	1310 0347 33	LICENCE PLATE LAMP	1								
80	1310 0347 11	JACK	1								
90	1310 0345 82	MUD FLAP	2								
100	1310 0345 82	HUDRAULIC ACTUATOR	1								
110	1310 0346 45	SAFETY CHAIN	2								
120	1310 0362 73	LIGHT MOUNT	2								
130	1310 0362 39	AXLE ASSY EB	2								
140	1310 0362 36	BRAKE	2								
150	1310 0362 35	BRAKE	2								
190	1310 0732 62	FRAME	1								
200	1310 0733 17	SCREW HEX	2								
210	1310 0733 18	NUT	2								
220	1310 0732 74	LUG NUT	20								

## CUBICLE ASSEMBLY - QAS 70 - STANDARD

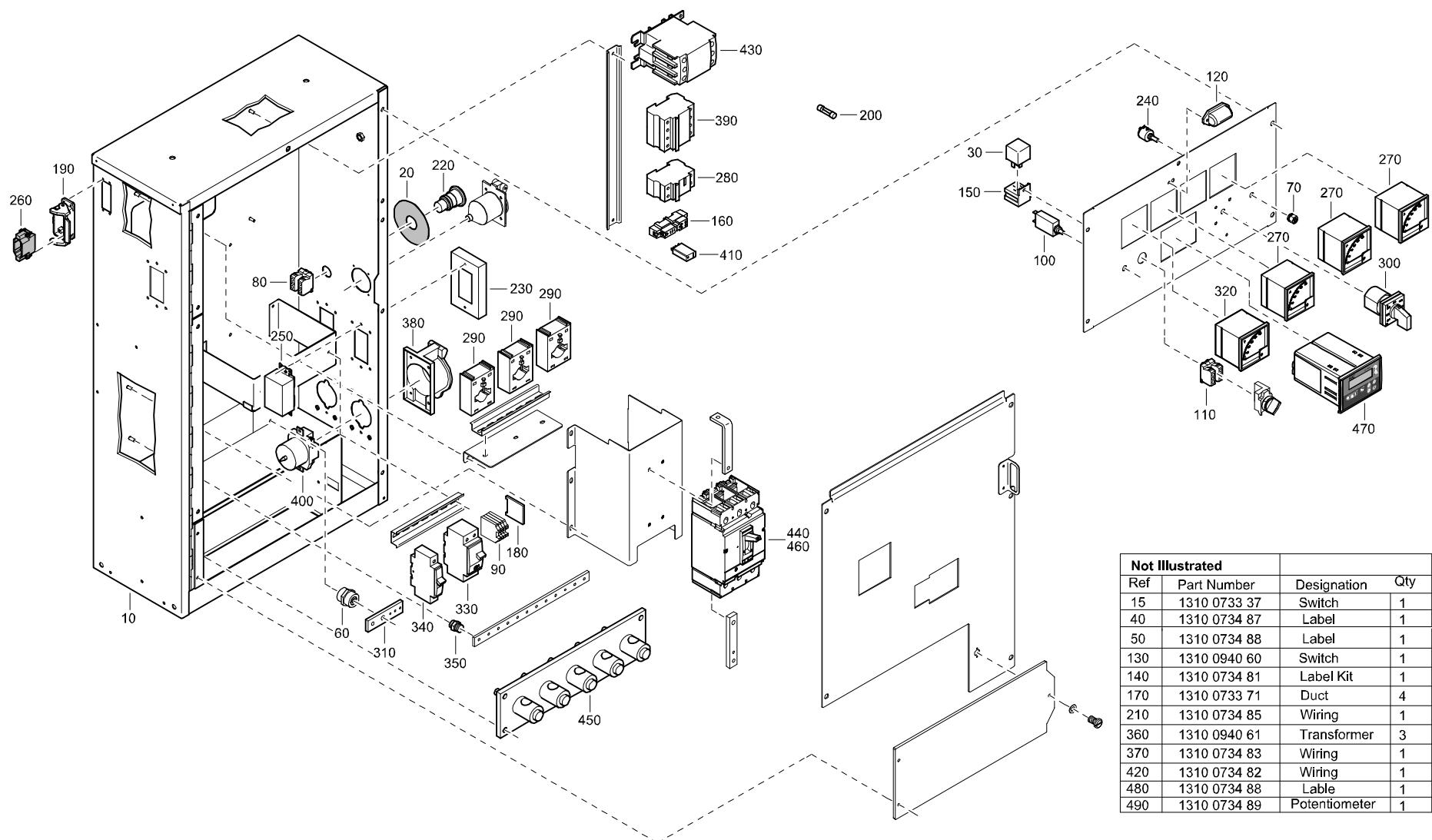


Not Illustrated			
Ref	Part Number	Designation	Qty
40	1310 0734 87	Label	1
50	1310 0734 88	Label	1
130	1310 0940 60	Switch	1
140	1310 0734 81	Label Kit	1
170	1310 0733 71	Duct	4
210	1310 0734 85	Wiring	1
360	1310 0940 61	Transformer	3
370	1310 0734 83	Wiring	1
420	1310 0734 82	Wiring	1

## CUBICLE ASSEMBLY - QAS 70 - STANDARD

REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
-	1310 8014 80	CUBICLE ASSY	(From page 35)	•400	1310 0733 38	RECEPTACLE	2				
•10	1310 8014 00	CUBICLE	1	•410	1310 0734 77	OVERCURRENT RELAY	1				
•20	1310 0734 91	DECAL	1	•420	1310 0734 82	WIRING	1				
•30	1310 0733 67	RELAY	1	•430	1310 0734 76	CONTACTOR	1				
•40	1310 0734 87	LABEL	1	•440	1310 0940 62	SHUNT TRIP	1				
•50	1310 0734 88	LABEL	1	•450	1615 8508 00	TERMINAL BOARD	1				
•60	1310 0734 72	ISOLATOR	4	•460	1310 0940 63	BREAKER	1				
•70	1310 0733 61	NUT	1	•470	1604 9418 03	CONTROLLER	1				
•80	1310 0733 60	SWITCH	2								
•90	1310 0733 54	TERMINAL	4								
•100	1310 0733 66	BREAKER	1								
•110	1310 0733 55	TERMINAL	1								
•120	1310 0733 65	LIGHT	1								
•130	1310 0940 60	SWITCH	1								
•140	1310 0734 81	LABEL KIT	1								
•150	1310 0733 63	SOCKET	1								
•160	1310 0734 78	OVERCURRENT RELAY BASE	1								
•170	1310 0733 71	DUCT	6								
•180	1310 0733 59	TERMINAL	1								
•190	1310 0733 58	CONNECTOR HOUSING	1								
•200	1310 0733 44	FUSE	4								
•210	1310 0734 85	WIRING	1								
•220	1310 0733 69	SWITCH	1								
•230	1310 0733 41	COVER	3								
•240	1310 0734 89	POTENTIOMETER	1								
•250	1310 0733 43	RECEPTACLE	3								
•260	1310 0733 53	CONNECTOR	1								
•270	1310 0734 70	METER	3								
•280	1310 0734 75	FUSE HOLDER	1								
•290	1310 0734 69	TRANSFORMER	3								
•300	1310 0733 49	SWITCH	1								
•310	1310 0734 73	BUSSBAR	1								
•320	1310 0733 50	METER	1								
•330	1310 0733 39	BREAKER	2								
•340	1310 0733 45	BREAKER	2								
•350	1310 0734 71	COPPER GROUND BAR	1								
•360	1310 0940 61	TRANSFORMER	3								
•370	1310 0734 83	WIRING SINGLE BREAKER POT	1								
•380	1310 0733 40	COVER	2								
•390	1310 0733 48	FUSEHOLDER	1								

## CUBICLE ASSEMBLY - QAS 90 - 120 - STANDARD

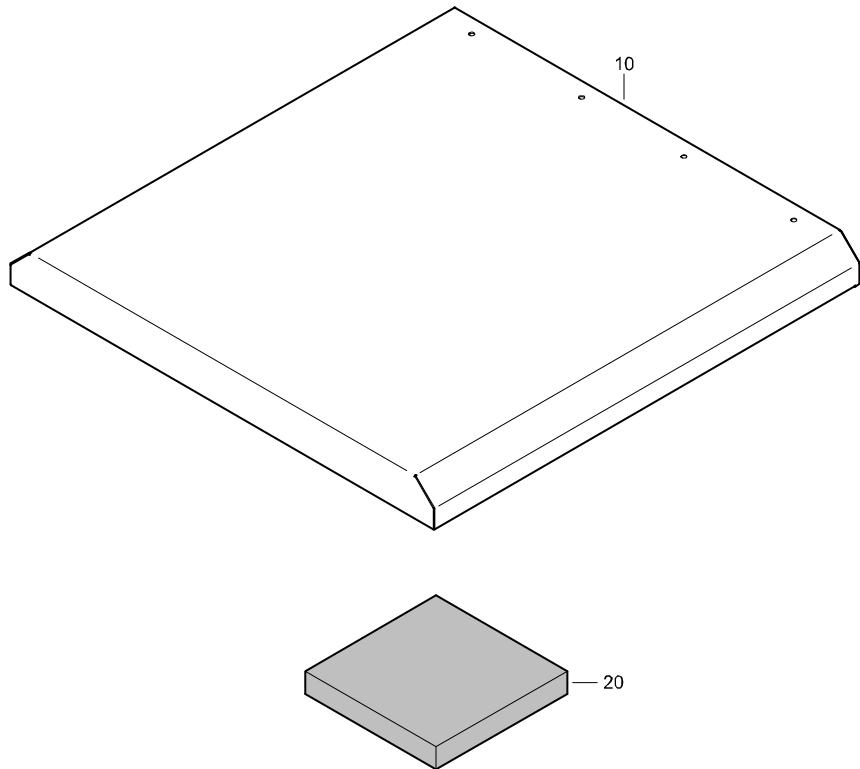


Not Illustrated			
Ref	Part Number	Designation	Qty
15	1310 0733 37	Switch	1
40	1310 0734 87	Label	1
50	1310 0734 88	Label	1
130	1310 0940 60	Switch	1
140	1310 0734 81	Label Kit	1
170	1310 0733 71	Duct	4
210	1310 0734 85	Wiring	1
360	1310 0940 61	Transformer	3
370	1310 0734 83	Wiring	1
420	1310 0734 82	Wiring	1
480	1310 0734 88	Label	1
490	1310 0734 89	Potentiometer	1

**CUBICLE ASSEMBLY - QAS 90 - 120 - STANDARD**

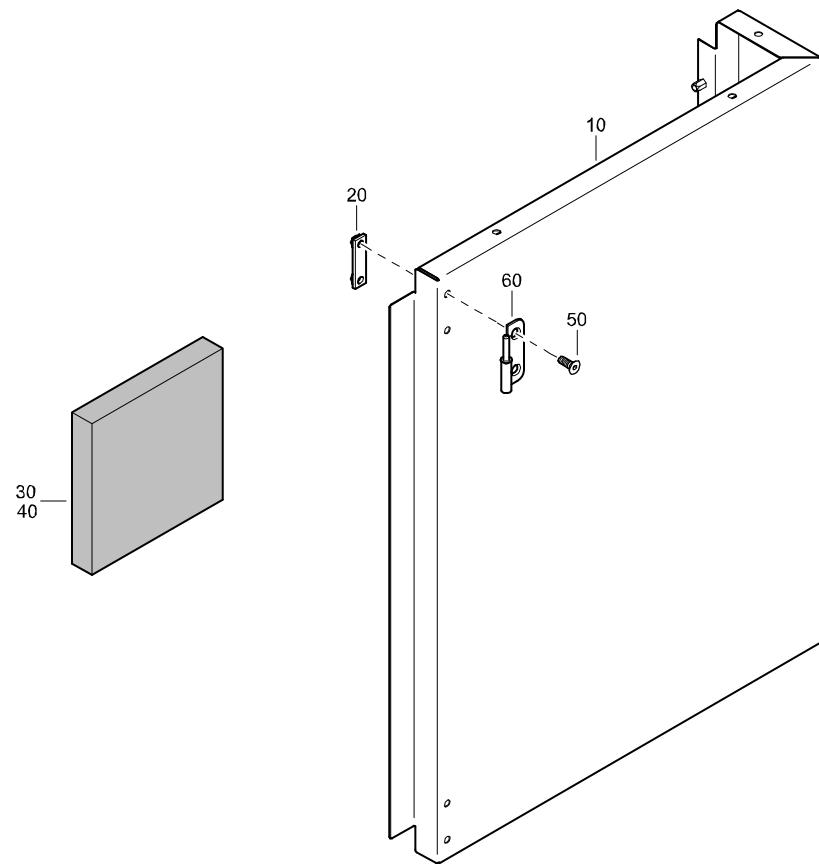
REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY	REF	PART NUMBER	DESIGNATION	QTY
-	1310 8015 80	CUBICLE ASSEMBLY  (From page 36)		•390	1310 0734 81	LABEL KIT	1				
•10	1310 8015 00	CUBICLE	1	•400	1310 0733 45	BREAKER	2				
•15	1310 0733 37	SWITCH	1	•410	1310 0733 39	BREAKER	2				
•20	1310 0733 38	RECEPTACLE	2	•420	1310 0734 82	WIRING	1				
•30	1310 0733 40	COVER	2	•430	1310 0734 83	WIRING	1				
•40	1310 0733 41	COVER	2	•440	1310 0734 84	WIRING					
•50	1310 0733 43	RECEPTACLE	2	•450	1310 0734 85	WIRING	1				
•60	1310 0733 44	FUSE	4	•460	1310 0734 86	WIRING					
•70	1310 0733 48	FUSEHOLDER	1	•470	1310 0734 87	LABEL	1				
•80	1310 0733 49	SWITCH	1	•480	1310 0734 88	LABEL	1				
•90	1310 0733 50	METER	1	•490	1310 0734 89	POTENTIOMETER	1				
•100	1310 0733 53	CONNECTOR	1								
•110	1310 0733 54	TERMINAL	4								
•120	1310 0733 55	TERMINAL	1								
•130	1310 0733 58	CONNECTOR HOUSING	1								
•140	1310 0733 59	TERMINAL	1								
•150	1310 0733 60	SWITCH	2								
•160	1310 0733 61	NUT	1								
•170	1310 0733 63	SOCKET	1								
•180	1310 0734 91	DECAL	1								
•190	1310 0733 65	LIGHT	1								
•200	1310 0733 66	BREAKER	1								
•210	1310 0733 67	RELAY	1								
•220	1310 0733 69	SWITCH	1								
•230	1310 0733 71	DUCT	4								
•250	1310 0734 69	TRANSFORMER	3								
•260	1310 0734 70	METER	3								
•270	1310 0734 71	COPPER GROUND BAR	1								
•280	1310 0734 72	ISOLATOR	4								
•290	1310 0734 73	BUSSBAR	1								
•300	1310 0734 74	PLUG	1								
•310	1604 9418 03	CONTROLLER	1								
•320	1310 0734 75	FUSEHOLDER	1								
•330	1310 0734 76	CONTACTOR	1								
•340	1310 0734 77	OVERCURRENT RELAY	1								
•350	1310 0734 78	OVERCURRENT RELAY BASE	1								
•360	1310 0734 79	BREAKER	1								
•370	1310 0734 80	SHUNT TRIP	1								
•380	1615 8508 00	TERMINAL BOARD	1								

## REAR ROOF ASSEMBLY - STANDARD



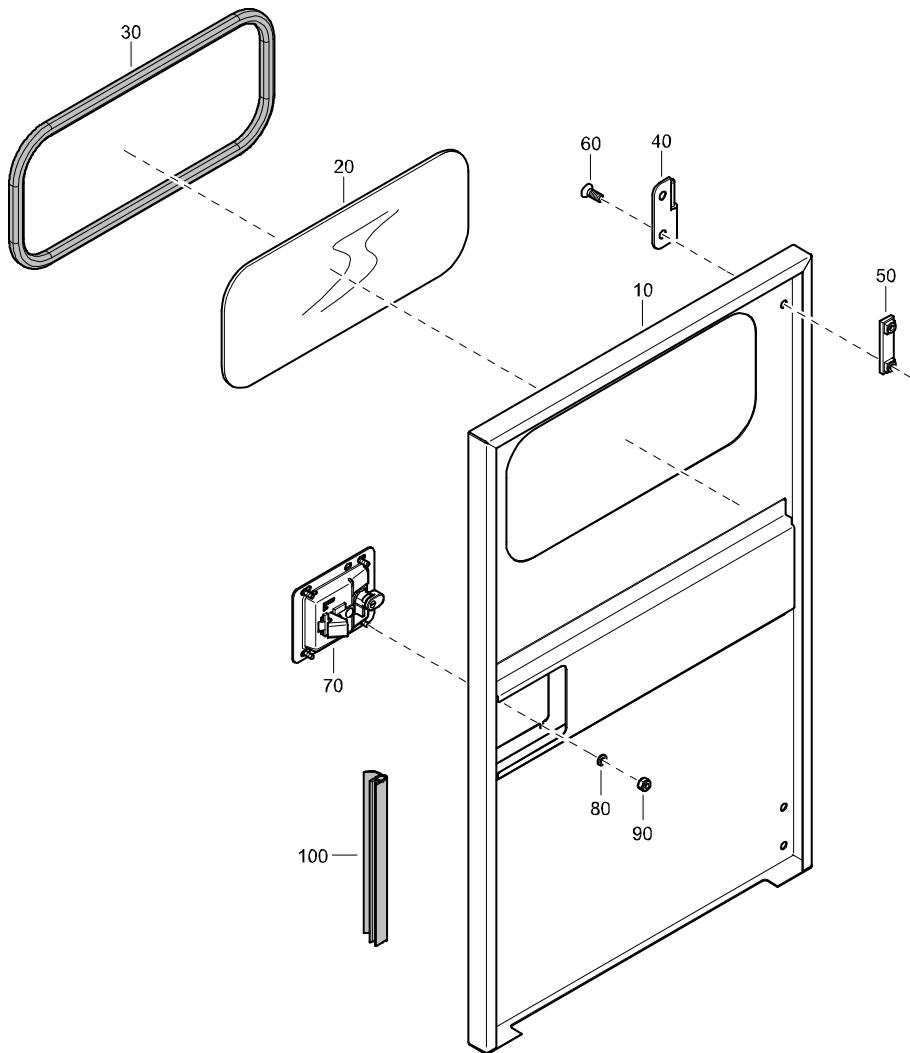
REF	PART NUMBER	DESIGNATION	QTY
-	1310 4371 80	PANEL-ROOF ASSY REAR <i>(From page 42)</i>	
•10	1310 4371 00	PANEL ROOF REAR	1
•20	1310 0370 10	INSULATION ROOF	2

## SIDE PANEL ASSEMBLY - STANDARD



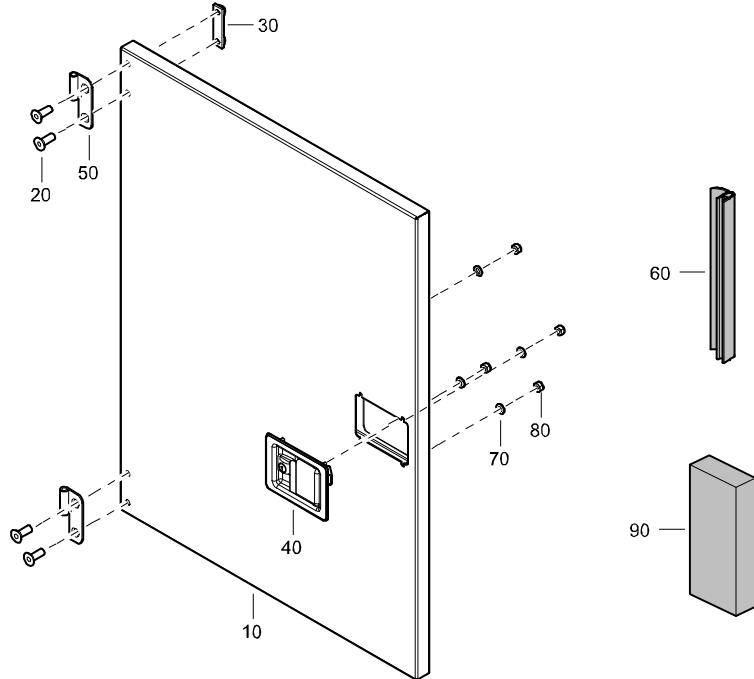
REF	PART NUMBER	DESIGNATION	QTY
-	1310 4373 80	SIDE PANEL ASSY	(From page 42)
•10	1310 8692 00	PANEL	1
•20	1615 5684 00	BRACKET	2
•30	1310 8692 71	INSULATION	2
•40	1310 8692 72	INSULATION	2
•50	0216 1324 03	SCREW	4
•60	1604 3430 00	HINGE	2

## CUBICLE DOOR ASSEMBLY - STANDARD



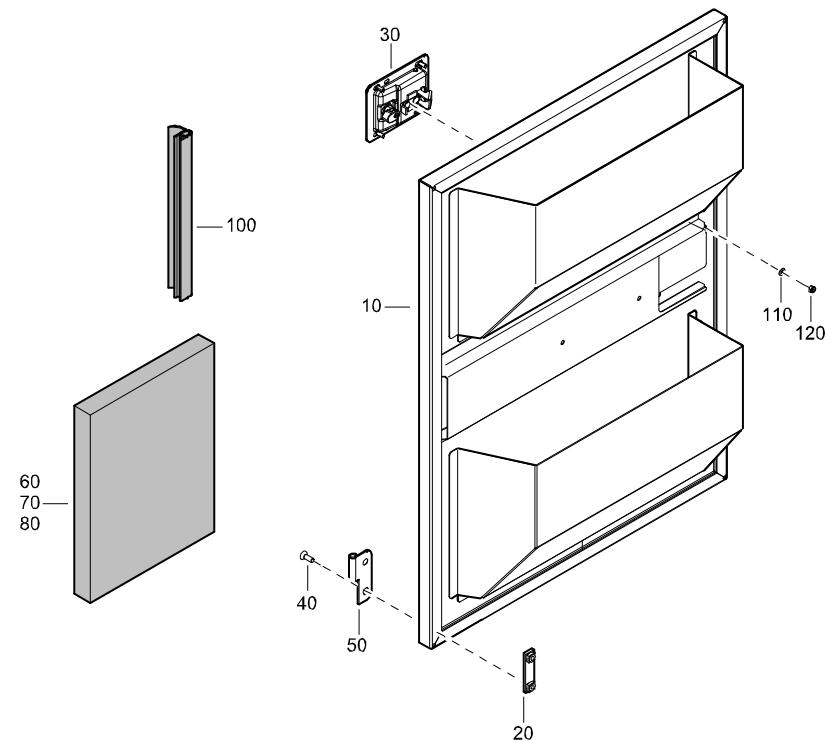
REF	PART NUMBER	DESIGNATION	QTY
-	1310 4377 80	CUBICLE DOOR ASSY. (From page 42)	
•10	1310 4377 00	DOOR	1
•20	1310 4048 00	WINDOW	1
•30	1310 4049 00	SEAL	AR
•40	1615 5685 01	HINGE	2
•50	1615 5684 00	BRACKET	2
•60	0216 1324 03	SCREW	4
•70	1615 6967 03	HANDLE	1
•80	0301 2321 00	WASHER	4
•90	0291 1108 00	LOCKNUT	4
•100	1619 2665 00	SEAL	AR

## DOOR ASSEMBLY - STANDARD



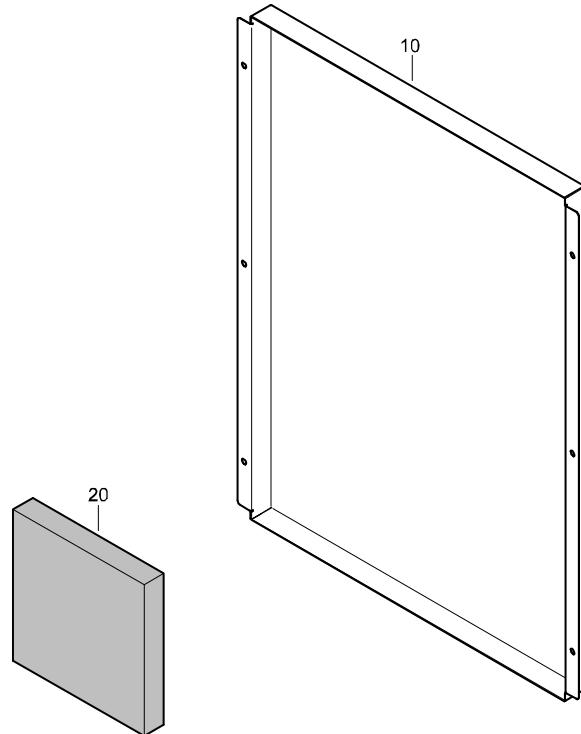
REF	PART NUMBER	DESIGNATION	QTY
-	1310 4416 80	DOOR ASSY	(From page 42)
•10	1310 4416 00	DOOR PANEL	1
•20	0216 1324 03	BOLT	4
•30	1615 5684 00	HINGE BRACKET	2
•40	1615 6967 03	DOOR HANDLE	1
•50	1604 3429 00	HINGE- UPPER	2
•60	1619 2665 00	SEAL	1
•70	0301 2321 00	WASHER	4
•80	0291 1108 00	LOCKNUT	4
•90	1310 4416 70	INSULATION	2

## DOOR ASSEMBLY - STANDARD



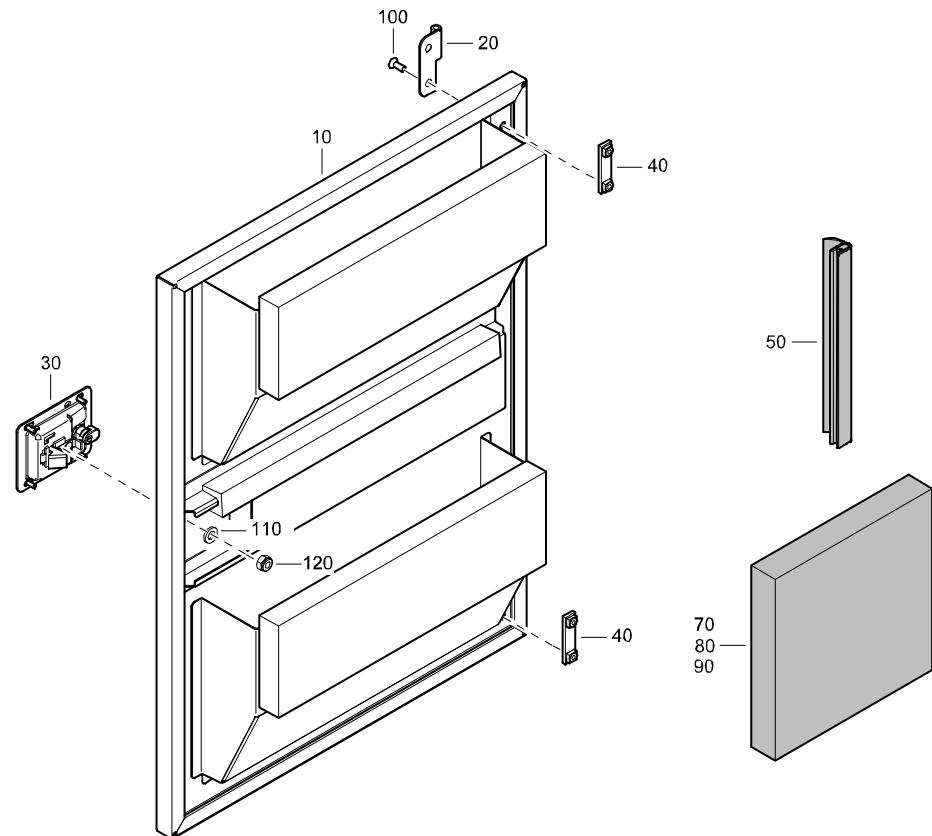
REF	PART NUMBER	DESIGNATION	QTY
-	1310 4417 80	DOOR ASSY	(From page 42)
•10	1310 4417 00	DOOR PANEL	1
•20	1615 5684 00	HINGE BRACKET	2
•30	1615 6967 03	DOOR HANDLE	1
•40	0216 1324 03	BOLT	4
•50	1604 3431 00	HINGE - UPPER	2
•60	1310 4417 72	INSULATION	2
•70	1310 5004 72	INSULATION	2
•80	1310 4417 70	INSULATION	2
•100	1619 2665 00	SEAL	1
•110	0301 2321 00	WASHER	4
•120	0291 1108 00	LOCK NUT	4

## FRONT PANEL ASSEMBLY - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
-	1310 4378 80	FRONT PANEL ASSY <a href="#">(From page 42)</a>	
•10	1310 4378 00	PANEL	1
•20	1310 0370 18	INSULATION	1

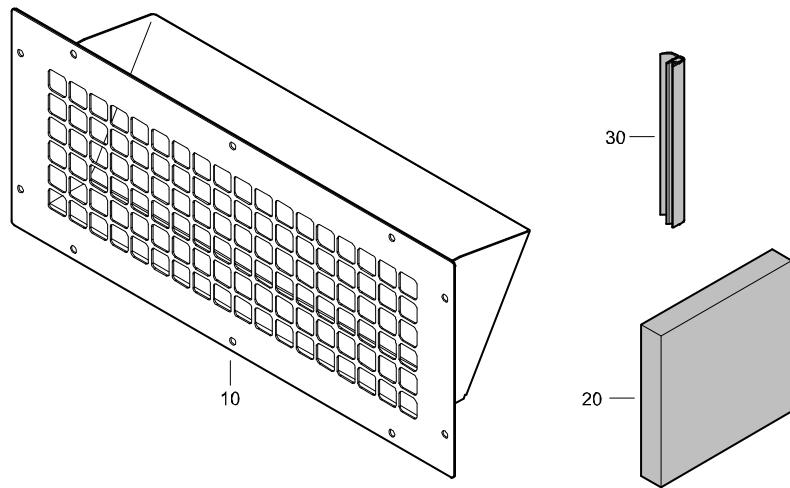
## DOOR ASSEMBLY - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
-	1310 5004 80	DOOR ASSY	(From page 42)
•10	1310 5004 00	DOOR	1
•20	1604 3429 00	HINGE UPPER	2
•30	1615 6967 03	DOOR HANDLE	1
•40	1615 5684 00	HINGE BRACKET	2
•50	1619 2665 00	SEAL	1
•70	1310 5004 71	INSULATION	2
•80	1310 5004 72	INSULATION	2
•90	1310 5004 73	INSULATION	2
•100	0216 1324 03	BOLT	4
•110	0301 2321 00	WASHER	4
•120	0291 1108 00	LOCKNUT	4

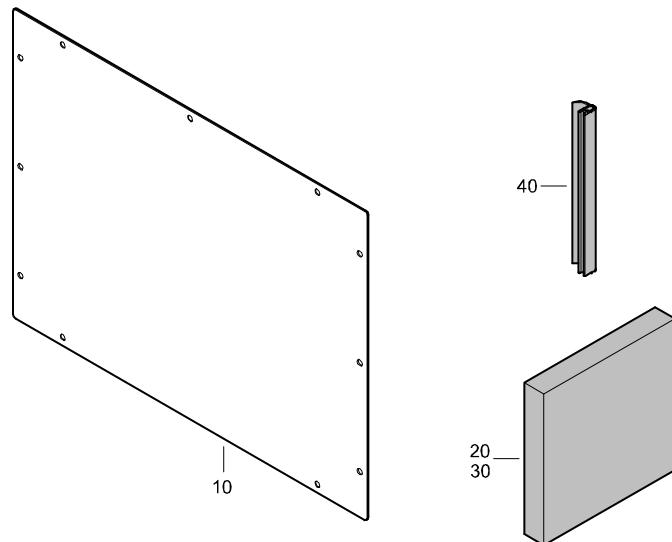
## PANEL ASSEMBLY - STANDARD

REF	PART NUMBER	DESIGNATION	QTY
-	1310 5006 80	PANEL ASSY	(From page 42)
•10	1310 5006 00	PANEL ASSY	1
•20	1310 5006 70	INSULATION	1
•30	-	SEAL	1

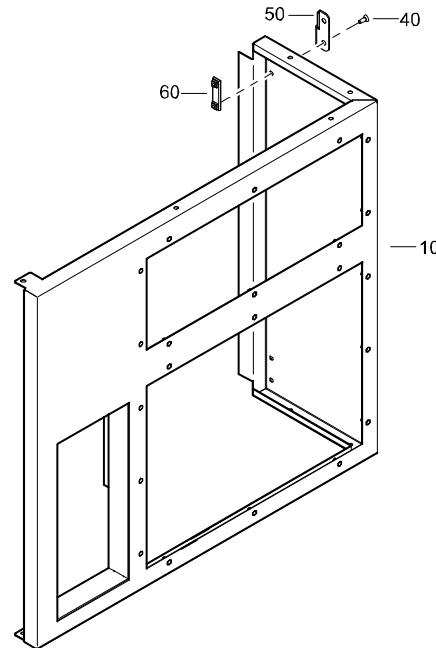
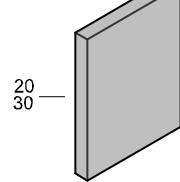


## PANEL ASSEMBLY - STANDARD

REF	PART NUMBER	DESIGNATION	QTY
-	1310 5007 80	PANEL ASSY	(From page 42)
•10	1310 5007 00	SERVICE PLATE	1
•20	1310 5007 71	INSULATION	1
•30	1310 5007 70	INSULATION	2
•40	1310 5009 00	SEAL	1

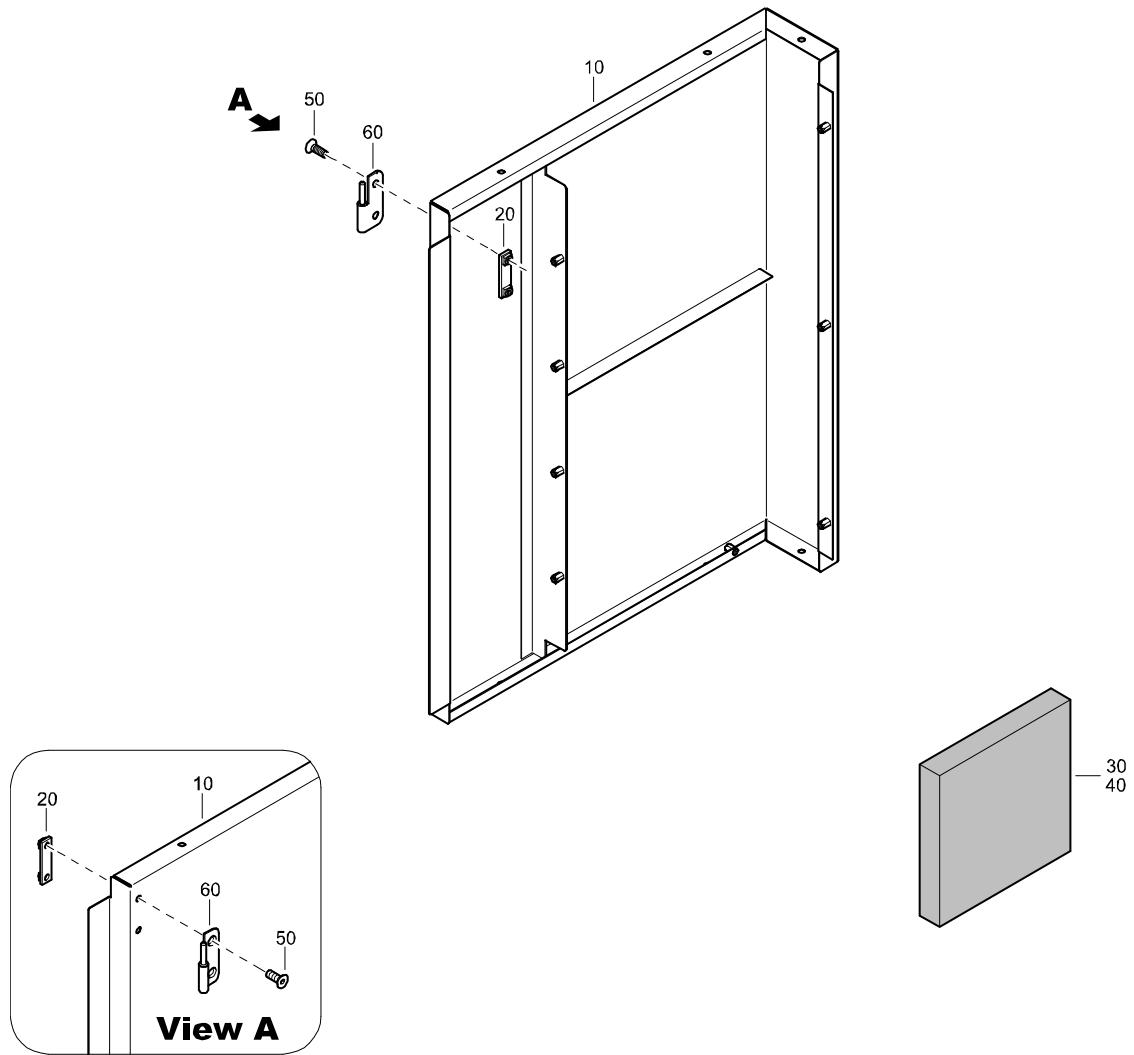


## PANEL ASSEMBLY - STANDARD



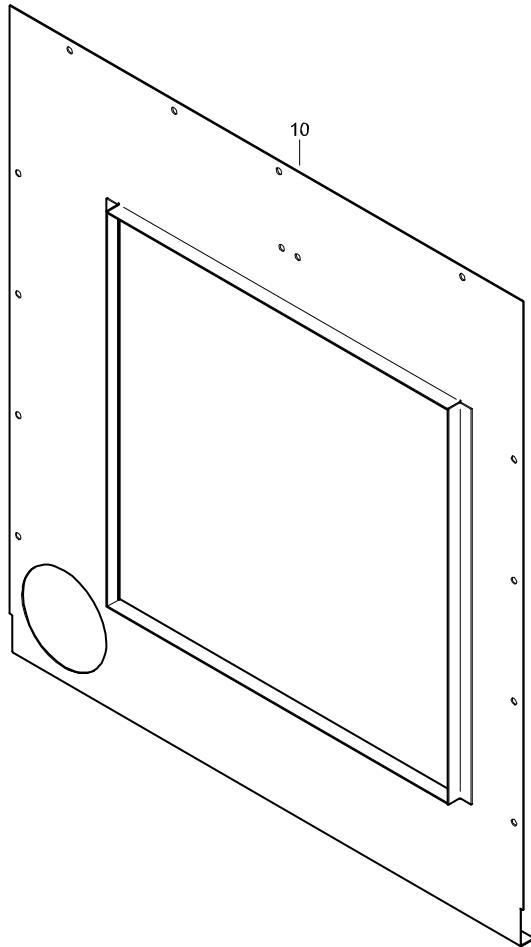
REF	PART NUMBER	DESIGNATION	QTY
-	1310 5008 80	PANEL ASSY	(From page 42)
•10	1310 5008 00	PANEL ASSY	1
•20	1310 5008 71	INSULATION	1
•30	1310 5008 70	INSULATION	1
•40	0216 1324 03	BOLT	4
•50	1604 3428 00	HINGE	2
•60	1615 5684 00	HINGE	2

## PANEL ASSEMBLY - STANDARD



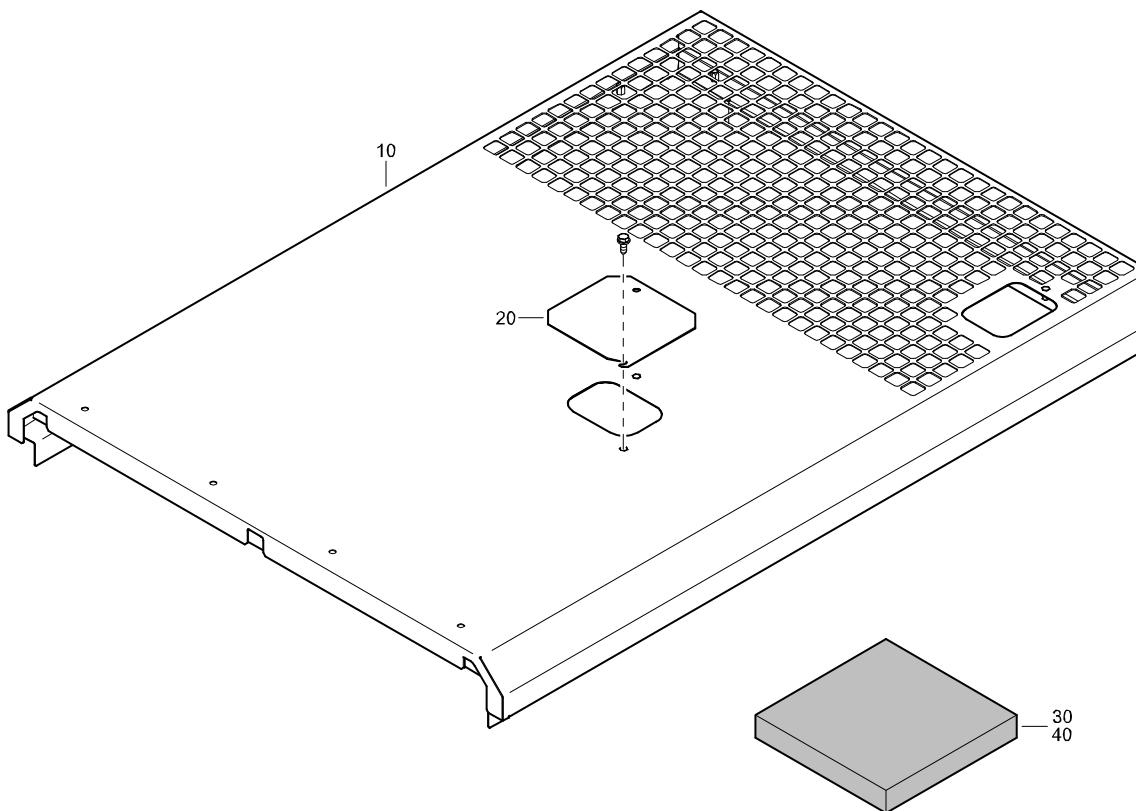
REF	PART NUMBER	DESIGNATION	QTY
-	1310 8692 80	PANEL ASSY	(From page 42)
•10	1310 5008 00	PANEL ASSY	1
•20	1310 5008 71	INSULATION	2
•30	1310 5008 70	INSULATION	2
•40	0216 1324 03	BOLT	2
•50	1604 3428 00	HINGE LOWER	4
•60	1615 5684 00	HINGE BRACKET	2

## PANEL - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
-	1310 6971 80	PANEL	(From page 42)
•10	1310 6971 00	PANEL	1

## PANEL ASSEMBLY - STANDARD



REF	PART NUMBER	DESIGNATION	QTY
-	1310 6976 80	PANEL ASSEMBLY (From page 42)	
•10	1310 6976 00	FRONT ROOF PANEL	1
•20	1310 4477 00	COVER	1
•30	1310 6976 72	FOAM	1
•40	1310 6976 71	FOAM	1







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