

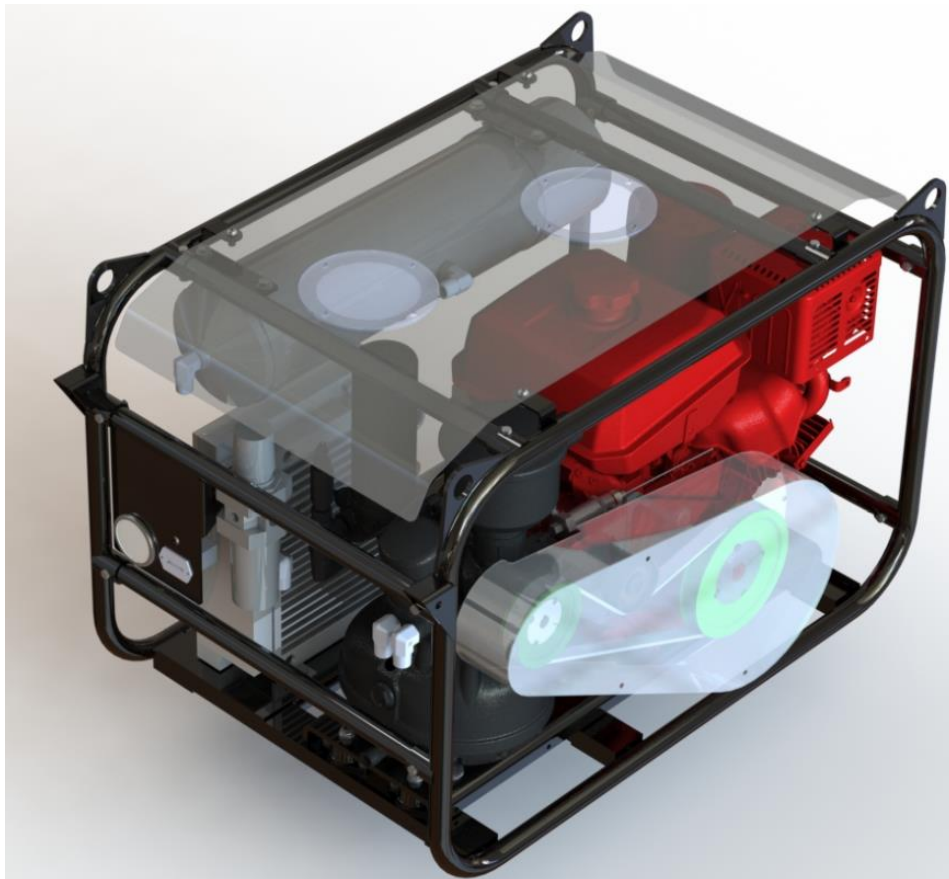


MEEA
MOBILE ENERGY AUSTRALIA
Specialists in vehicle mounted compressor & generator systems

SMARTPACK 35

(SP35P SP35D)

Owners & Operators Manual



**35CFM Compact Petrol or Diesel Driven
Air Compressor**

Revision: 1
Revised: 03/12/2018

7214-D0001-01

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MEA Product Warranty Registration Form

**THIS FORM MUST BE COMPLETED AND
RETURNED WITHIN 30 DAYS OF INSTALLATION
OR
WARRANTY WILL BE VOID**

Document No 7214-D0001-01

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MEA Product Warranty Registration Form

This form must be completed and returned to MEA at the time of Installation. Warranty will be void if this form is not received by MEA within 30 days of installation.

MEA Dealer Information

Company Name: _____

City: _____ State: _____ Country : _____

MEA Installer Information

Company Name: _____

City: _____ State: _____ Country : _____

Installation Date: _____ / _____ / _____
Day Month Year

Owner Information

Company Name: _____

Address: _____

City: _____ State: _____ Country : _____

Postcode: _____ Phone #: _____

Product Information

MEA Serial Number: _____

Model Number: _____

Document No 7214-D0001-01

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Both the MEA Product Warranty Registration form (located at the FRONT of this Manual) and the Kohler Engine Warranty Registration form (located at the back of this manual) are to be returned to MEA.

FAILURE TO RETURN EITHER FORM MAY RESULT IN THE PRODUCT WARRANTY BEING VOID.

1. PRODUCT SAFETY

(COMPRESSOR / COMPRESSED AIR)

MEA DISCLAIMS ALL LIABILITIES FOR DAMAGE OR LOSS OF EQUIPMENT AND PROPERTY, PERSONAL INJURIES (INCLUDING DEATH), AND CONSEQUENTIAL DAMAGES ARISING OUT OF ANY MEA SYSTEM NOT USED IN ACCORDANCE WITH THE OPERATOR'S MANUAL.

ALL UNITS ARE SHIPPED WITH A DETAILED OPERATOR'S MANUAL. THIS MANUAL CONTAINS VITAL INFORMATION FOR THE SAFE USE AND EFFICIENT OPERATION OF THE UNIT. READ THE OPERATOR'S MANUAL BEFORE STARTING THE UNIT. FAILURE TO ADHERE TO THE INSTRUCTIONS COULD RESULT IN SERIOUS BODILY INJURY OR PROPERTY DAMAGE.

Care is required when working with an air compressor or compressed air. Compressed air is one of the many ways energy can be stored. Releasing the stored energy in an uncontrolled manner can result in catastrophic consequences. Death and permanent disability are possibilities that can occur. The following are suggested as minimum requirements to be followed when operating the MEA Smartpack system. It is important that each work site shall perform a risk analysis and produce a procedure to eliminate or control the hazardous conditions to minimise the risk to personnel and equipment. Health and Safety Regulations necessitate that this is a compulsory process to be carried out on each site. These, together with site specific safety procedures will help to minimize the risk to accidents, personnel injury, and loss of life. It is the responsibility of the employer to ensure that the work site is safe for all employees and that the safety procedures are followed by all employees.

SAFETY WHEN OPERATING AN AIR COMPRESSOR

- Do not bypass or disable the oil temperature and pressure sensors – unless planning on running to failure (MEA does not recommend the practice).
- Do not expose the tank or compressor to extreme heat.
- Do not perform any service or repairs until the system has been completely relieved of air pressure.
- Maintenance and repairs on the system should only be done by qualified personnel.
- Do not operate the compressor while driving.
- Do not tamper with the pressure relief valve.
- Follow safe work practice, wear the appropriate personal protective equipment (PPE) when operating air-powered equipment, particularly eye and hearing protection.
- Avoid contact with rotating components, ensure all safety guards are in place.
- Avoid all contact with pressurized air. If it penetrates the skin, it can enter blood stream and cause death.
- Vaporized oil propelled by high pressure is an explosive mixture. To prevent compressor explosion or fire, make sure that the air entering the compressor is free of flammable vapours.
- Do not breathe the compressor air, vaporized oil is a respiratory hazard.
- Stay clear of all moving parts when the system is operating.
- Follow safety procedures for tyre service operations as set by the authority.

2. INTRODUCTION

MEA SmartPack 35 (SP35) – Petrol or Diesel utilizes a single cylinder engine to deliver power via a drive belt to a self-contained twin screw compressor packaged in the smallest frame possible to ensure that the unit can be used on the back of a work utility vehicle as well as in a garage, a workshop, or a property.

This manual has important information on the system; particularly how to install, operate and maintain properly. Refer to page seven (P.7) for information on installation as a vehicle mounted system.

Section six (6) to section seven (7) contains information on scheduled servicing and maintenance. Please note that this is a compressor system that produces air pressure that is dangerous to humans and animals. All service and maintenance that involves any part of the compressed air system must be carried out by a trained professional.

Failure to do so may result in damage to equipment, total and permanent injury or in worst case, death.

MEA cannot under any circumstances, be held responsible if the compressed air system has been tampered with by an untrained person.

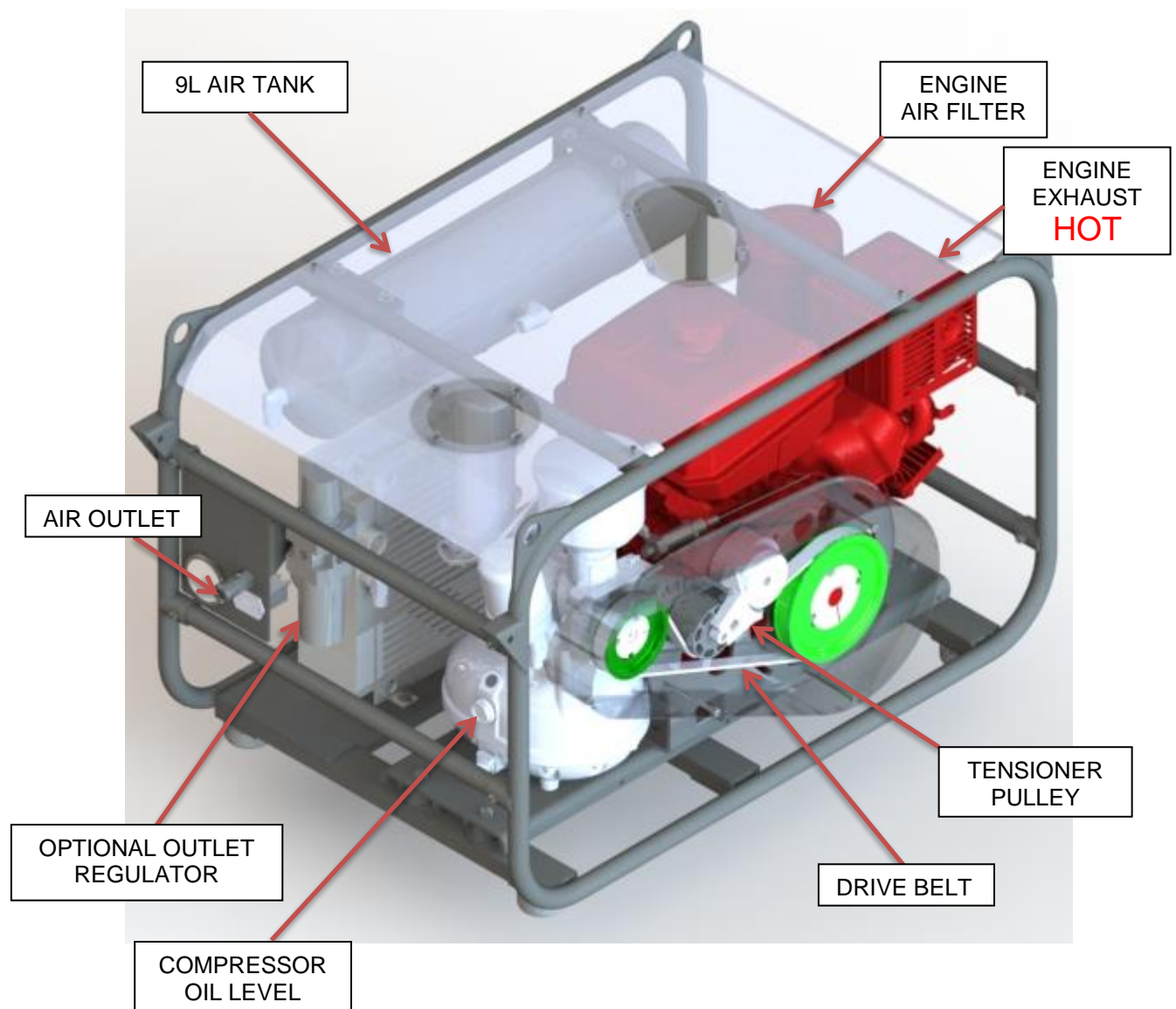
3. SPECIFICATIONS

Compressor Type:	Oil injected rotary screw compressor
Drive System:	Petrol or Diesel powered via Serpentine drive belt
Control:	Pneumatic
Maximum Air Delivery	35 CFM @ 150 psi
Pressure Regulation:	Mechanical inlet control valve modulates flow in response to demand
Inlet Valve Regulation	Pneumatic
Engine Control System:	Pneumatic speed control, engine and compressor high temperature and pressure engine shutdown system
Safety Features	Relief valve in compressor sump Temperature safety sensor in the compressor
Lubrication:	All replacement compressor oils must be approved by MEA prior to use. Warranty will be nullified if oil has not been approved. MEA certified and approved semi synthetic compressor oil Part Number 10019-K0005 Quantity of Compressor Oil Required ~ 3.5 Litres
Filters	Paper-type replaceable air filters Spin-on type compressor oil filter element Coalescing filter element Plastic fuel filter Spin on oil filter for Diesel engines only

4. OPERATING PROCEDURE

CHECKS REQUIRED PRIOR TO STARTING EACH DAY

1. Check the oil level in the engine.
2. Check the oil level in the compressor.
3. Check all hoses are secured and not damaged. Replace all damaged hoses before starting.
4. Check all electrical cables are secure. Secure all cables that are not tied down.
5. Check the air inlet and air filter on the engine are clean.



OPERATING PROCEDURE - *Continued*

STARTING / STOPPING UNIT

STARTING THE PETROL ENGINE

1. Check the air outlet valve is closed.
2. If the engine is cold, move the choke lever to closed (under the air filter).
3. Ensure that the fuel tap is on (under the air filter).
4. Turn the key to the right until the engine starts, then release the key.
5. Move the choke lever to open, ensuring the engine is running.
6. Allow the engine to run with no load for 2-3 minutes. This will allow the engine to achieve operating temperature. Only then is safe to load the compressor.
7. If the engine does not start, repeat the process described in 2, 3 and 4. The maximum number of attempts should be limited to 5 and after this; the operator should seek assistance from a mechanic.

STARTING THE DIESEL ENGINE

1. Check the air outlet valve is closed.
2. Ensure that the lever on the fuel solenoid is in the downward.
3. Turn the key to the right to power the glow plugs wait till glow plug indicator light has gone out, continue to turn the key until engine starts, then release the key.
4. Allow the engine to run with no load for 2-3 minutes. This will allow the engine to achieve operating temperature. Only then is safe to load the compressor.

STARTING THE COMPRESSOR

1. Once the engine is running the compressor will compress air filling the tank. Ensure all valves are closed for compressor to reach pressure.
2. Once the tank is at pressure, the engine speed drops to +/- 1200 RPM.
3. Listen for air leaks in the air system.
4. Should there be any air leaks from broken hose or connections. Stop the engine. Advise your maintenance department that you require assistance.

STOPPING THE COMPRESSOR UNIT

1. Stop using the compressor and close the discharge valve.
2. The compressor will reach regulated pressure and the engine speed will drop to +/- 1200RPM
3. It is good practice to allow the engine to run under no load for 1 minute. (Discharge valve closed)
4. Turn the ignition key to the off position. If you hear a slight "hissing" noise this is normal, the compressor is "blowing down" and releasing pressure out of the system.

5. INSTALLATION

The compressor is a rotary screw type driven by either a petrol or diesel engine. Compression occurs when inlet air (at normal atmospheric pressure) enters a chamber where it is trapped between the rotating rotor lobes. A lubricated pitch line provides sealing. As the lobes mesh, they reduce the volume of the air (compression).

The system has a two-stage air/oil separator. The first separation stage consists of baffles, which perform separation through gravity. The second stage uses a special separation element (a spin-on coalescing filter), which delivers mostly dry oil free air to the outlet.

A paper-type replaceable air filter is used to filter the air coming into the compressor intake valve. A spin-on type oil filter is used for oil filtration after the oil passes through the cooler and is returned to the compressor.

Pressure regulation is achieved by adjusting the pressure regulator valve mounted on the compressor body near the intake valve. The system pressure is set during final testing to 150psi if any air flow is required the engine speed will increase to full RPM (+/-3400 RPM) and fill the tank to 150psi. If no air is used the engine speed will drop to +/- 1200 RPM and be on standby until more air is required.

The compressor air intake is protected by a paper-type replaceable air filter, and a spin-on type oil filter for the oil side and a coalescing filter for final oil removal from the air.

Safety features included in the compressor are:

- 150 PSI relief valve in separation manifold,
- blow-down valve to discharge system pressure on shutdown,
- Over temperature safety sensor in the compressor oil
- Over pressure mounted at the minimum pressure valve,

Do not disable or bypass the over-temperature shutdown circuits. Failure of the shutdown system could result in equipment damage, injury, or death.

An oil cooler maintains the operating temperatures in an optimal performance range. This helps to increase system durability.

Mounting the Compressor Unit to Vehicle

Before starting the installation, have a quick overview of the requirements. Some of these points will be dealt with in more details further on in this text. Things that should be considered before installation begins are as follows.

1. The unit should be installed in an open area.
2. The unit needs to be properly secured to the vehicle with rubber isolators and bolted down.
3. The unit must be mounted in such a way that sight level glass for compressor oil level can be checked easily.
4. It should be possible to service the unit easily without having to remove and reposition the unit.
5. The unit should be protected from excessive exposure to the elements and possible incidental damage from other operations.
6. The unit should be installed in an area away from heat sources such as engines, exhaust systems or other components that generate heat.
7. The unit should not be installed in a location where it will be exposed to high contamination levels or combustible gases.

8. The engine exhaust should be considered when installing to ensure that other components on the vehicle do not get the heat blast.

INSTALLATION - Continued

9. If mounting the unit in an enclosed space, direct the engine exhaust outside the enclosure.

Ventilation consideration

It is not possible to make absolute recommendations regarding ventilation because of the wide variety of circumstances that are possible. Duty cycle, ambient temperature, and enclosure shape (or footprint) are some of the important variables. Ideal installation is where a good ventilation exists with no restrictions on airflow. there are two ways in which the SMARTPACK system can be mounted.

Top or Deck Mounting

This is the preferred mounting location. By placing the unit in an area where there are no restrictions on the intake of fresh air and exhausting of hot air and exhaust gases, this provides the best cooling and ensures reliability and life for the compressor / engine driven unit.

Enclosed Mounting

It is important to seek the technical advice from manufacturer in installing the unit when it is to be placed in an enclosed area. Ventilation is one of the most important things to consider before installation of a compressor/ engine driven unit in an enclosed area. It is important that the air intake to the compressor and the engine exhaust are located outside of the enclosed space.

The unit generates a considerable amount of heat when running. Proper ventilation is vital to good operation and to avoid damage to components due to poor ventilation. Ensure there is a minimum of 10" (250 mm) clearance between exhaust and any other components mounted on the vehicle. If this is not possible, and was not discussed prior to purchase, please contact MEA to purchase an exhaust deflector.

If the unit is installed in an area considered to be enclosed, it is strongly recommended that the unit is tested to certain criteria to ensure proper working. The following is a method suggested for testing.

1. It is best to test the installation at the hottest anticipated ambient temperature
2. Setup and run the system at 120 PSI. This can be done by installing a ball valve on the air outlet pipe and adjusting the opening of the valve so that the compressor is running continuously at 120 PSI.
3. Record the engine, compressor, and current ambient temperature for future reference.
4. Run the system at full load for at least one hour or until the temperatures stabilizes. Temperature stabilizing means there is no rise in temperature for 15 minutes when the compressor is running at the rated load.
5. Record the engine and compressor temperatures every 10 minutes.
6. If the system tripped on over-temps, the ventilation is not sufficient, review the installation, make changes as needed, and repeat the test.

Completing the Installation - Before the First Start-up

Make sure that the following have been completed before operating the MEA SMARTPACK 35 Compressor Unit -

1. Check the compressor oil level; (Note that the oil is very clear, and it may be difficult to see the level)
2. Check the engine oil level.

3. Check fuel level.

INSTALLATION - Continued

4. Do a final inspection to make sure that all fasteners and connections are tight.
5. Check that all hoses and wiring are secure and protected.
6. Connect the battery cables to the terminals; always connect the “Negative Terminal” first.

Check Operation – Setup & Performance Testing of Petrol Driven Compressor –

1. The compressor is dispatched from the factory with the pressures pre-set to the customer specifications. Should the customer want to alter this setting, the instructions on how to re-set can be found in the compressor manual.
2. Install the ball valve on the outlet of the hose from the compressor. Set the ball valve to the closed position.
3. Refer to “Page 6” of this manual for the method to be used to start the compressor.
4. After starting, running, and charging the tank, the air pressure shall be found to be at the pressure specified by the customer and the engine will be at the lower speed (idle speed). Pressure settings of the unit has been adjusted by the factory to the customer specifications. If the pressure is not at the specified pressure, contact MEA before attempting any adjustments.
5. Listen for leaks in the air line. You should hear a hissing sound if there are any leaks. Rectify any leak issue that you may find before starting work.
6. Keep the system running until the compressor is up to operating temperature (at which point fan switches to “on”).
7. Using the ball valve located at the outlet of the compressor, slowly open the ball valve, and watch the pressure drop. The pressure will drop to the point that it is 30 PSI below the running pressure. The engine will speed up to the maximum pre-set RPM.
8. Keep the opening of the ball valve at the setting described in “step (7)” above for about 5 (five) minutes. The engine should continue to run at the maximum pre-set RPM.
9. Slowly close the ball valve and watch the pressure while closing. The engine will drop to the lower speed when the pressure reaches running pressure.
10. It is an indication that the compressor is working perfectly if it is operating as described. (If the performance deviates from above descriptions, please contact MEA for technical advice)



6. SCHEDULE MAINTENANCE

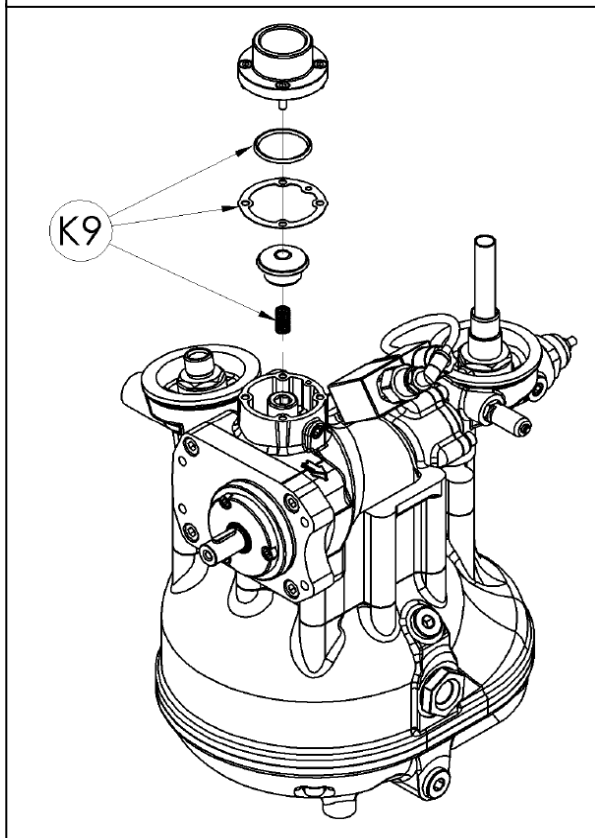
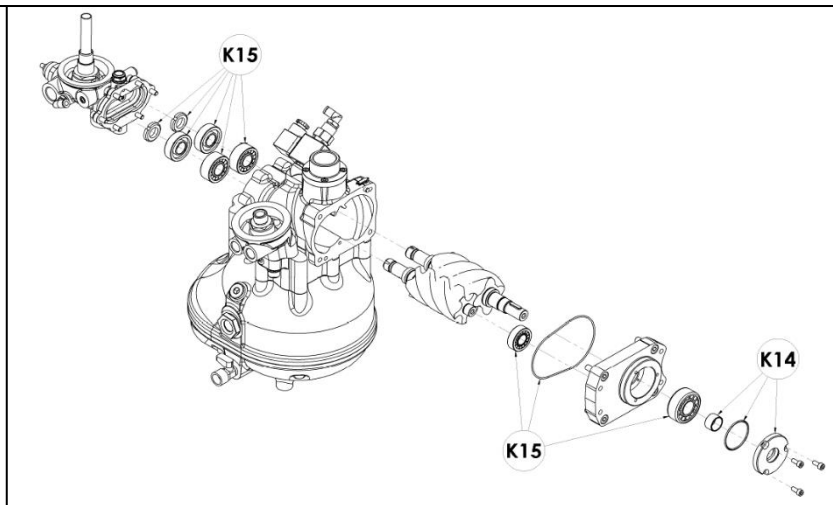
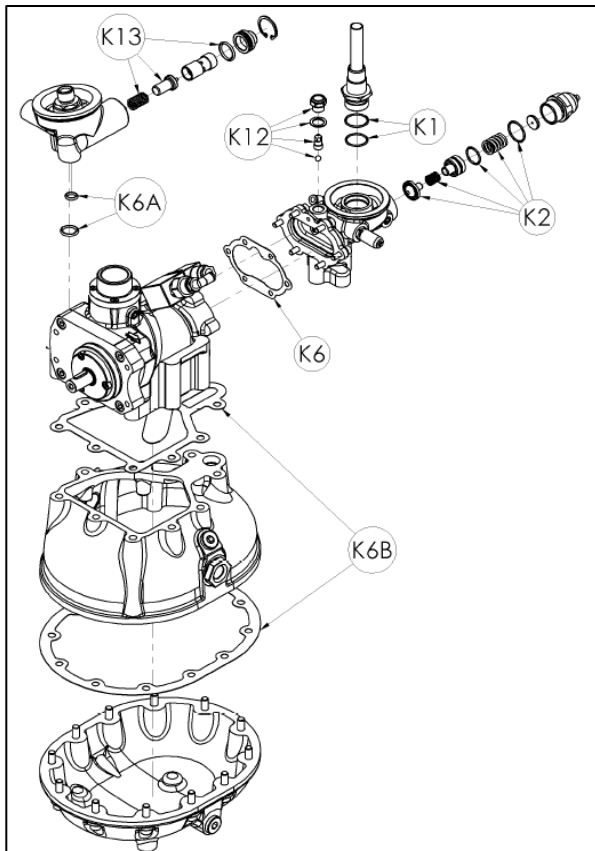
This section is dedicated to the maintenance schedules as outlined by the engine and compressor manufacturer under standard operating conditions. If the conditions are severe steps need to be taken for the affected areas to be maintained at shorter intervals.
Daily inspection should happen before each start-up.

Interval	Compressor	Petrol Engine	Diesel Engine
Action to be taken			
Periodically During Operation	Observe all gauge readings. Note any change from the normal reading and determine the cause. Have the necessary repairs made? (Note: "Normal" is the usual gauge reading when operating at similar conditions on a day-to-day basis.)		
Periodically as required	Inspect and replace spin-on coalescing element if necessary.	check fuel filter periodically.	
	Inspect and clean oil cooler fins.		
	Check for oil and/or air leaks.		
AFTER FIRST 50 HOURS OF OPERATION		Change engine oil and oil filter	
Every 10 Hours or Daily	Check the compressor oil level.	Check engine oil level	
	Check air filter/s and connecting hose and clamps		
	Check for oil and air system, including hoses, for leaks		
Every 25 Hours or Monthly	Drain water from than and check Compressor oil level	Inspect engine	
After first 50 hours of operation	Check system for oil and/or air leaks	Check fuel hose and clamping band.	
	Check engine/compressor mounts fastener torque.		Change engine oil.
	Check belt and pulleys for signs of wear - note that belt normally gives off blue particles until It runs in		Replace oil carter. (In case of low use; every 6 months)
Every 100 Hours	Check engine/compressor mounts fastener torque.		
	Check compressor oil level	Change engine oil	
	Check system for oil and/or air leaks		
	Clean air cleaner element		
	Check engine/compressor/generator mounts for excessive wear and fastener torque.		
Every 200 Hours of Operation or 6 months		Change engine air intake filter if necessary	
Every 400 Hours of operation or 9 months Engine compressor see Service Kit List	Change compressor oil 3L	Change Engine oil 1.1L	
	Change compressor oil filter	Change engine oil filter	
	Change compressor air filter	Replace fuel filter element if necessary	
		Change Spark Plug	
		Check valve clearance	
	Check belt and pulleys for signs of wear		
Check engine/compressor mounts fastener torque.			
Every 500 Hours (in case of low use every year)			Setting and injectors cleaning.
			Setting rocker arms clearance.

Every 500 Hours (in case of low use every year)			Change Engine oil 1.1L. In case of low use, every year. In using lower quality oil, change every 150 hours.
			Change engine oil filter.
			Replace fuel filter.
			Change Air filter.
800 Hours / 18 months	Change compressor oil filter	Replace engine air filter and service as per 400 hrs service	
	Change compressor coalescing filter		
	Change compressor air filter		

7. SPARE PARTS AND SERVICE KITS

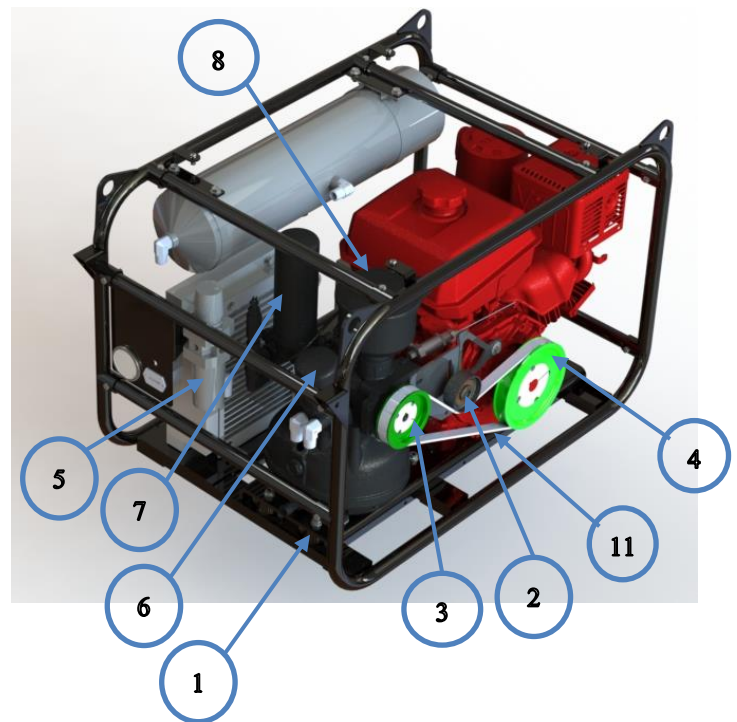
7.1 COMPRESSOR



MEA PART NUMBERS		DESCRIPTION	PACK SMART V61B 55°	PACK SMART V61B 71°	PACK SMART V61B 83°	WORKING HOURS
K1	270.0590	M22-M24 SEPARATOR NIPPLES SPARE PARTS KIT	•	•	•	Corrective maintenance
K2	220.0010	V.M.P. G10 (1/2-3/4) SPARE PARTS KIT	•	•	•	after 8000 hours
K6	725.0070	VDM SEAL PACK SMART V61 SPARE PARTS KIT	•	•	•	Corrective maintenance
K6A	725.0072	VTFT SEAL PACK SMART V61 SPARE PARTS KIT	•	•	•	Corrective maintenance
K6B	725.0071	TANK SEAL PACK SMART V61 SPARE PARTS KIT	•	•	•	Corrective maintenance
K9	600.5090	RH30E-nr COMPLETE SPARE PARTS KIT	•	•	•	after 8000 hours
K12	725.0090	INTERNAL OIL RECOVERY VIEWER	•	•	•	Corrective maintenance
K13	725.0050	THERMOSTATIC VALVE SPARE PARTS KIT 55°	•	•	•	after 8000 hours
	725.0051	THERMOSTATIC VALVE SPARE PARTS KIT 71°	•	•	•	
	725.0052	THERMOSTATIC VALVE SPARE PARTS KIT 83°	•	•	•	
K14	900.5244	V61 AIR-END OIL SPLASHGUARD SPARE PARTS KIT	•	•	•	after 8000 hours
K15	900.5248	V61 AIR-END BEARINGS SPARE PARTS KIT	•	•	•	after 20000 hours

7.2 OTHERS

NO	ITEM	DESCRIPTION
1	10003-P0005	ISOLATOR RUBBER
2	10004-P0166	AUTO-TENSIONER
3	10004-P0155	DRIVEN PULLEY
4	10004-P0156	DRIVER PULLEY
5	10008-P0026	REGULATOR
6	10008-P0041	OIL FILTER
7	10008-P0045	COALESCING FILTER
8	10008-P0111	AIR FILTER
9	10019-K0005	COMPRESSOR OIL 5L (Not Shown)
10	20012-P0004	RELAY 12V (Not shown)



PETROL ENGINE		
11	10004-P0165	DRIVE BELT
DIESEL ENGINE		
11	10004-P0201	DRIVE BELT

PLEASE CONTACT MEA SPARE PART SALES FOR ITEMS WHICH ARE NOT COVERED HEREIN.

7.3 SPARE PARTS AND SERVICE KITS Cont.

SMARTPACK 35D SERVICE KITS AND PART NUMBERS

200 Hour - 7219-KB0001		
Part Number	Description	Quantity
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
10021-P0006	DECAL OIL MEA OIL	1
10008-P0126	FILTER OIL ENGINE KOHLER	1
10008-P0128	FILTER AIR ENGINE KOHLER	1
7201-P0075	DECAL NEXT SERVICE DUE	1
400 Hour - 7219-KB0002		
Part Number	Description	Quantity
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
10021-P0006	DECAL OIL MEA OIL	1
10008-P0126	FILTER OIL ENGINE KOHLER	1
10008-P0128	FILTER AIR ENGINE KOHLER	1
7201-P0075	DECAL NEXT SERVICE DUE	1
10019-K0005	OIL 5 LITRE CONTAINER COMPRESSOR	1
10001-P0076	FUEL FILTER INLINE	1
10008-P0041	FILTER OIL COMPRESSOR	1
800 Hour - 7219-KB0003		
Part Number	Description	Quantity
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
10021-P0006	DECAL OIL MEA OIL	1
10008-P0126	FILTER OIL ENGINE KOHLER	1
10008-P0128	FILTER AIR ENGINE KOHLER	1
7201-P0075	DECAL NEXT SERVICE DUE	1
10019-K0005	OIL 5 LITRE CONTAINER COMPRESSOR	1
10001-P0076	FUEL FILTER INLINE	1
10008-P0041	FILTER OIL COMPRESSOR	1
10008-P0045	FILTER COALESCING	1
10008-P0111	FILTER AIR COMPRESSOR	1

7.3 SPARE PARTS AND SERVICE KITS Cont.

7214 Smartpack 35P		
200 Hour		
Part Number	Description	Quantity
10021-P0006	DECAL OIL MEA OIL	1
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
7201-P0075	DECAL NEXT SERVICE DUE	1
10008-P0146	FILTER AIR KOHLER CH440	1
400 Hour		
Part Number	Description	Quantity
10021-P0006	DECAL OIL MEA OIL	1
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
10019-K0005	OIL 5 LITRE CONTAINER COMPRESSOR	1
7201-P0075	DECAL NEXT SERVICE DUE	1
10008-P0041	FILTER OIL COMPRESSOR	1
10008-P0146	FILTER AIR KOHLER CH440	1
800 Hour		
Part Number	Description	Quantity
10021-P0006	DECAL OIL MEA OIL	1
10019-K0007	OIL 5 LITRE CONTAINER DIESEL	1
10019-K0005	OIL 5 LITRE CONTAINER COMPRESSOR	1
7201-P0075	DECAL NEXT SERVICE DUE	1
10008-P0041	FILTER OIL COMPRESSOR	1
10008-P0045	FILTER COALESCING	1
10008-P0111	FILTER AIR COMPRESSOR	1
10008-P0146	FILTER AIR KOHLER CH440	1

8. TROUBLESHOOTING

PETROL ENGINE

Problem	Possible Cause							
	No Fuel	Improper Fuel	Dirt In Fuel Line	Dirty Debris Screen	Incorrect Oil Level	Engine Overloaded	Dirty Air Cleaner	Faulty Spark Plug
Will Not Start	•	•	•		•	•	•	•
Hard Starting		•	•		•	•	•	•
Stops Suddenly	•		•	•	•	•	•	•
Lacks Power		•	•	•	•	•	•	•
Operates Erratically		•	•	•		•	•	•
Knocks or Pings		•		•		•		•
Skips or Misfires		•	•	•			•	•
Backfires		•	•			•	•	•
Overheats		•	•	•	•	•	•	
High Fuel Consumption						•	•	•

COMPRESSOR

SYMPTOMS	PROBABLE CAUSE	CORRECTIVE ACTION
The compressor does not load.	1-The intake valve remains closed.	1-Check the valve. If necessary, replace the damaged parts with the spare parts kit.
	2-The solenoid valve does not work accurately	2-Check the solenoid valve. If necessary, replace it.
	3-Losses on the pressure line.	3-Check pipes and cables. If necessary, replace them.
During idling phase, the compressor does not discharge pressure from separator tank	1-The solenoid valve does not work accurately.	1-Check the solenoid valve. If necessary, replace it.
	2-The calibrated nozzle is clogged.	2-Remove the calibrated nozzle. Clean or replace it.
Compressor capacity or pressure lower than usual standard.	1-The air filter is clogged.	1-Remove the air filter. Clean or replace it.
	2-The intake valve does not open.	2-Check the valve. If necessary, replace the damaged parts with the spare parts kit.
	3-Air loss from safety valve.	3-Replace the valve.
Compressor keeps on loading over working pressure: safety valve opens	1-The solenoid valve does not work accurately.	1-Check the solenoid valve. If necessary, replace it.
	2-Clogged separator filter.	2-Replace the separator filter.
Compressor overheating.	1-Insufficient cooling.	1-Check the cooling system. Check coolant level on tank.
	2-Dirty oil	2-Replace it with new oil.
	3-Oil level is too low.	3-Check coolant level on tank and if necessary, add oil.
	4-Clogged-up cooler or pipe connection	4-Clean cooler and pipes.
	5-The thermostatic valve does not work correctly.	5-Check the thermostatic valve. If necessary, replace the damaged parts with spare parts kit (Contact MEA for parts required)
	6-Clogged oil filter	6-Replace the oil filter
During unloading phase, pressure increases up to safety valve opening	1-The intake valve remains open.	1-Check the valve. If necessary, replace the damaged parts with spare parts kit.
	2-The calibrated nozzle is clogged.	2-Remove the calibrated nozzle. Clean or replace it.
Oil leakage from intake	1-The intake valve does not work properly	1-Check the valve. If necessary, replace the

valve only when the machine is switched off: oil soaked-up air filter	(does not close) 2-The no-return valve of intake valve does not work correctly.	damaged parts with spare parts kit. 2-Check it and clean it.
Oil soaked-up air filter during unloading phase	1-Too high level of oil in the tank	1-Check oil level on separator tank.
	2- Clogged separator filter	2- Replace the separator filter.
	3-The recovery oil viewer is dirty or does not work appropriately.	3 -Clean it or if necessary, replace the damaged parts with spare parts kit. If separator filter is clogged up, replace it.
The compressor remains under loading phase.	1-The intake valve does not work properly (does not close)	1-Check the valve. If necessary, replace the damaged parts with spare parts kit.
Rotor seizure	1-Unknown particles inside.	1-Call MEA technical support.
	2-Insufficient lubrication.	2-Call MEA technical support.
Presence of oil in the outlet of minimum pressure valve	1-Separator filter damaged.	1-Replace the separator filter.
	2-Oil recovery viewer obstructed.	2-Clean the oil recovery viewer.
	3-Separator nipple with O-rings damaged.	3-Replace spare parts kit.

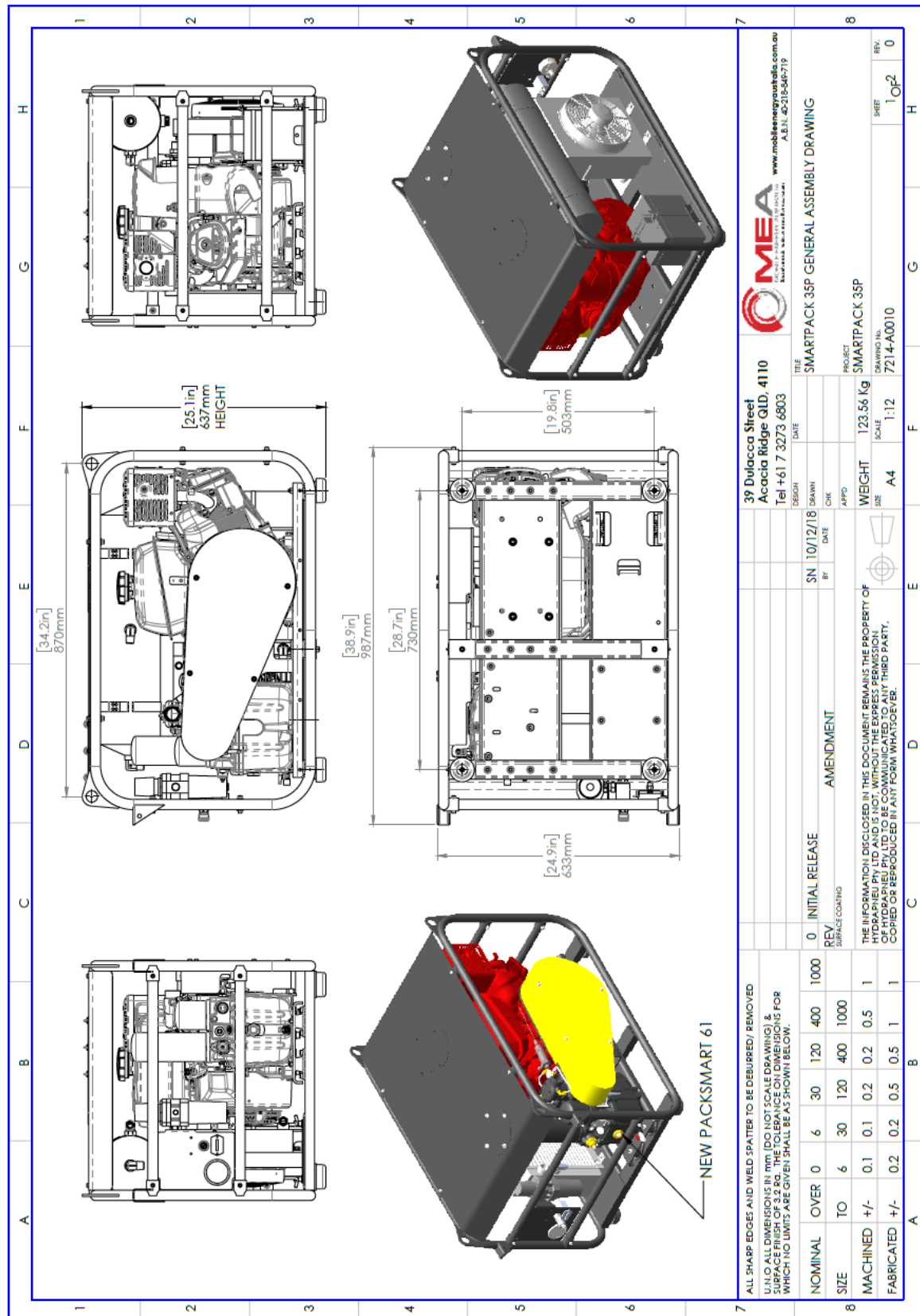
DIESEL ENGINE

No.	Problems	Probable causes
1	The engine does not start	Incorrect injection timing
		Rings worn or sticking
		Valves sticking
		loose cylinder locknuts
		Obstructed fuel line
		Fuel filter clogged
		Air leaks in fuel system
		Clogged tank vent hole
		Injector sticking
		Injection pump valve sticking
		Faulty fuel feeding pump
		Discharged battery
		Cable connections uncertain or incorrect
		Faulty starting switch
		Faulty starting motor
2	Engine Starts and stops	Clogged air filter
		Governor linkage wrongly set
		Low idle speed
		Fuel filter clogged
		Air leaks in fuel system
		Clogged tank vent hole
		Faulty fuel feeding pump
3	Poor acceleration	Clogged air filter
		Overloaded
		Incorrect injection timing
		Governor linkage wrongly set
		Governor spring broken
		Fuel filter clogged
		Air leaks in fuel system
		Clogged tank vent hole
		Hardened inj. pump rack
4	Unsteady speed	Governor linkage wrongly set
		Air leaks in fuel system
		Hardened inj. pump rack

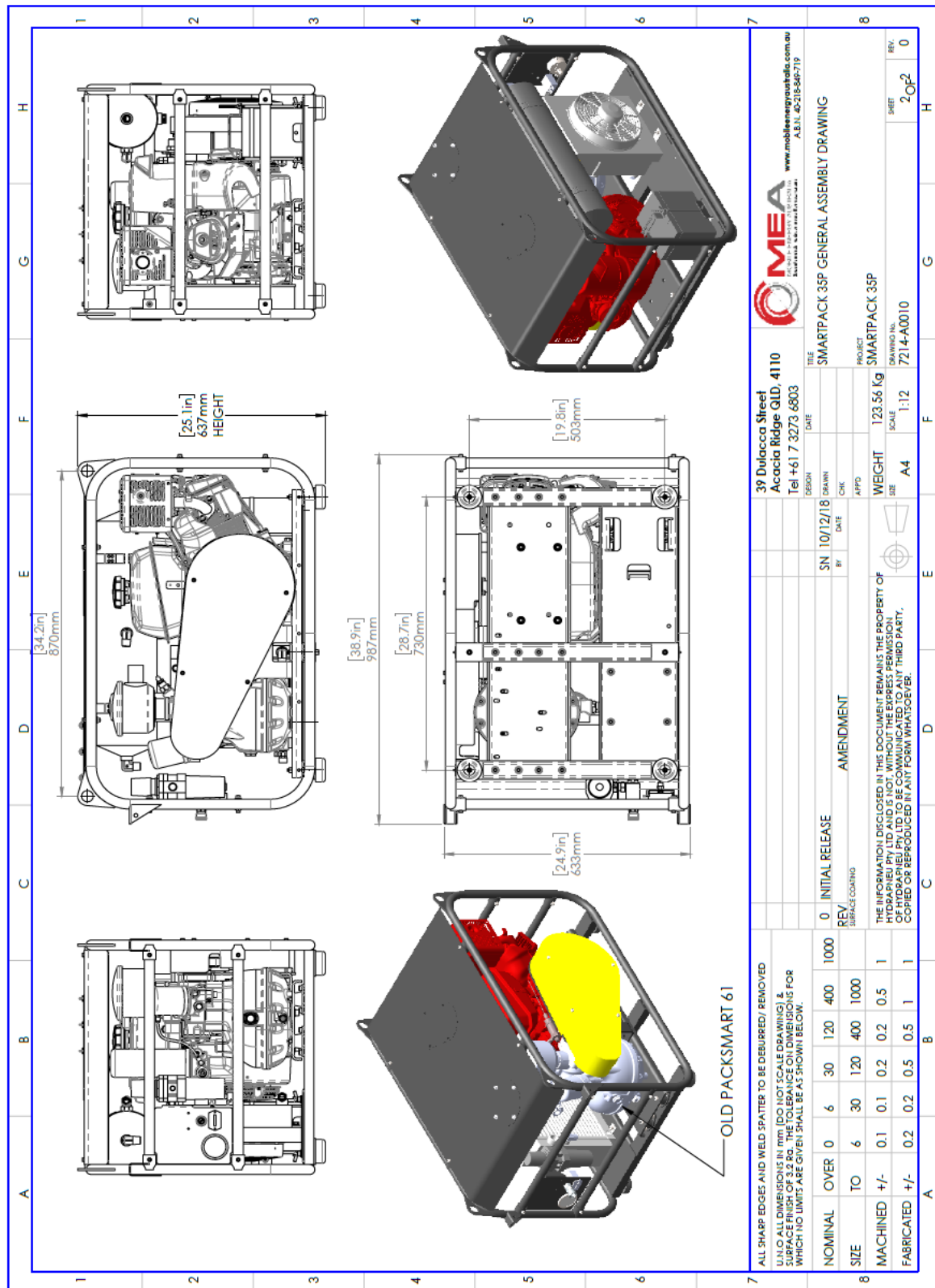
		Oil level too high
5	Black smoke	Clogged air filter
		Overloaded
		Injector not adjusted
		Extra fuel control level sticking
6	White smoke	Excessive idle operation
		Incomplete run-in
		Incorrect injection timing
		Rings worn or sticking
		Worn cylinder
		Fuel filter clogged
	White Smoke	Air leaks in fuel system
		Faulty fuel feeding pump
		Oil level too high
7	Low oil pressure	Worn main con. rods bearings -
		Oil pressure sticking
		Oil pressure regulator not adjusted
		Worn oil pump
		Air into oil suction line
		Faulty pressure gauge or pressure switch
		Oil suction line clogged

9. DRAWINGS & ILLUSTRATIONS

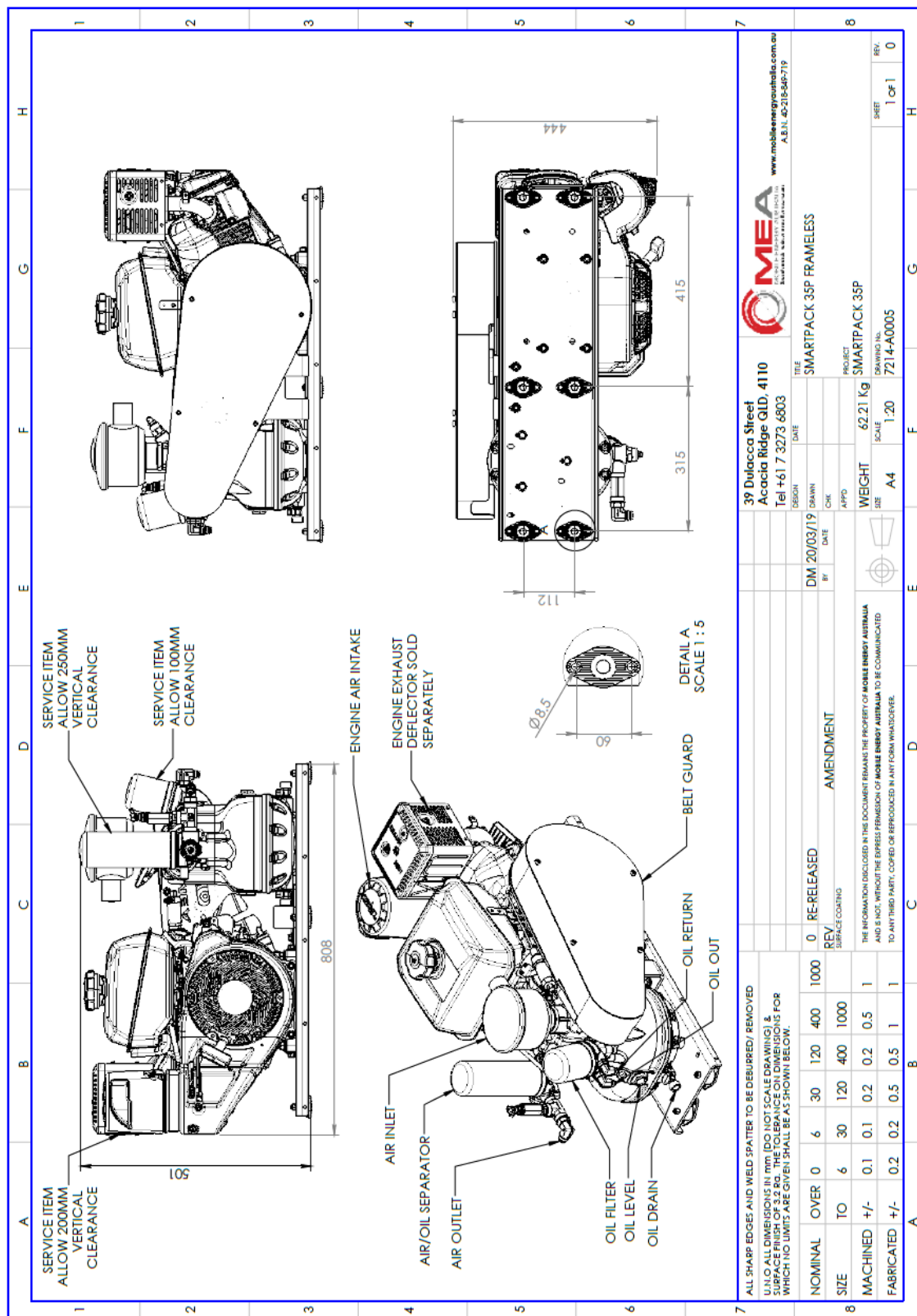
GA DRAWING – NEW PACKSMART61 (PETROL ENGINE)



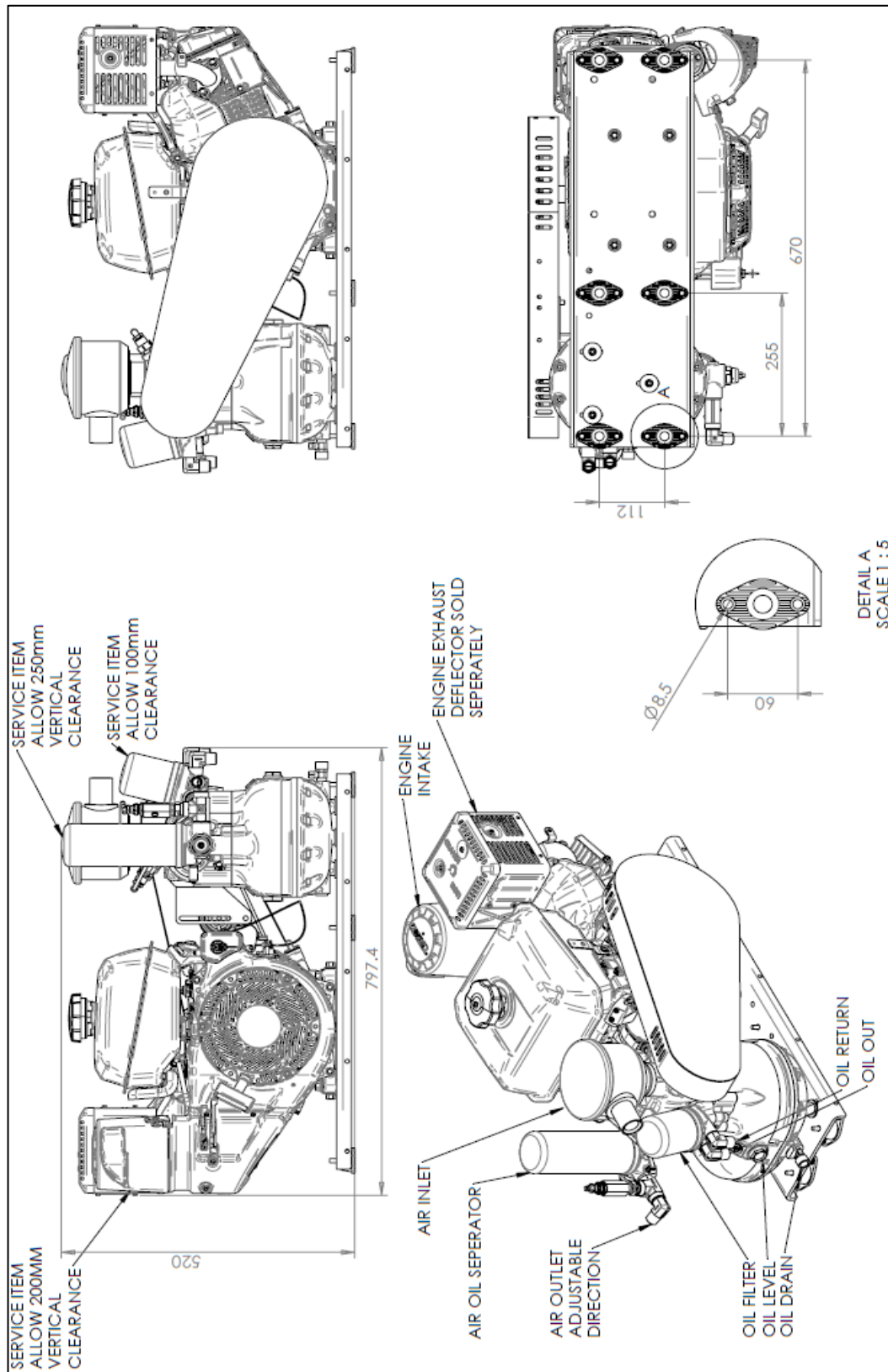
GA DRAWING – OLD PACKSMART61 (PETROL ENGINE)



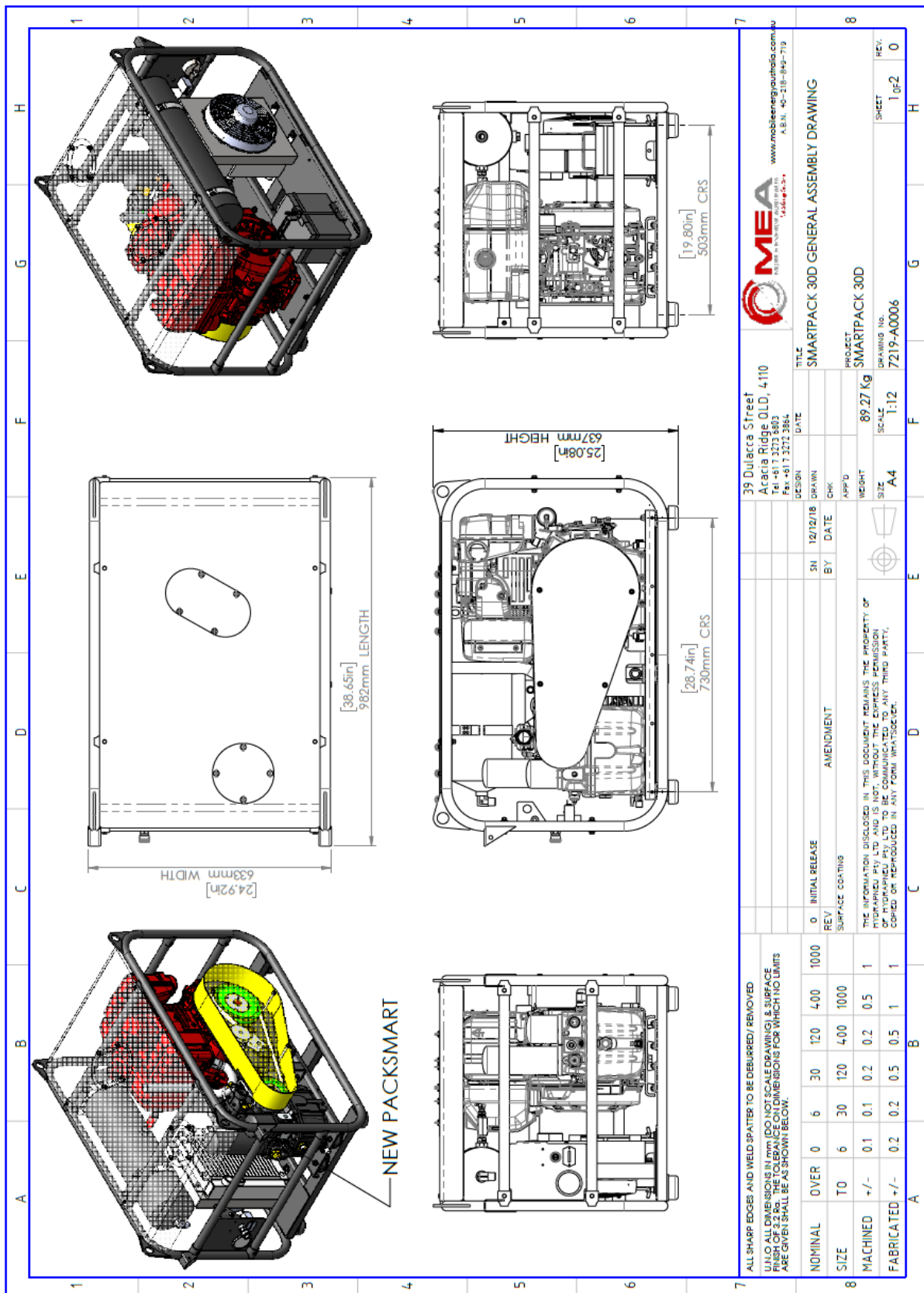
GA DRAWING – FRAMELESS (PETROL ENGINE)



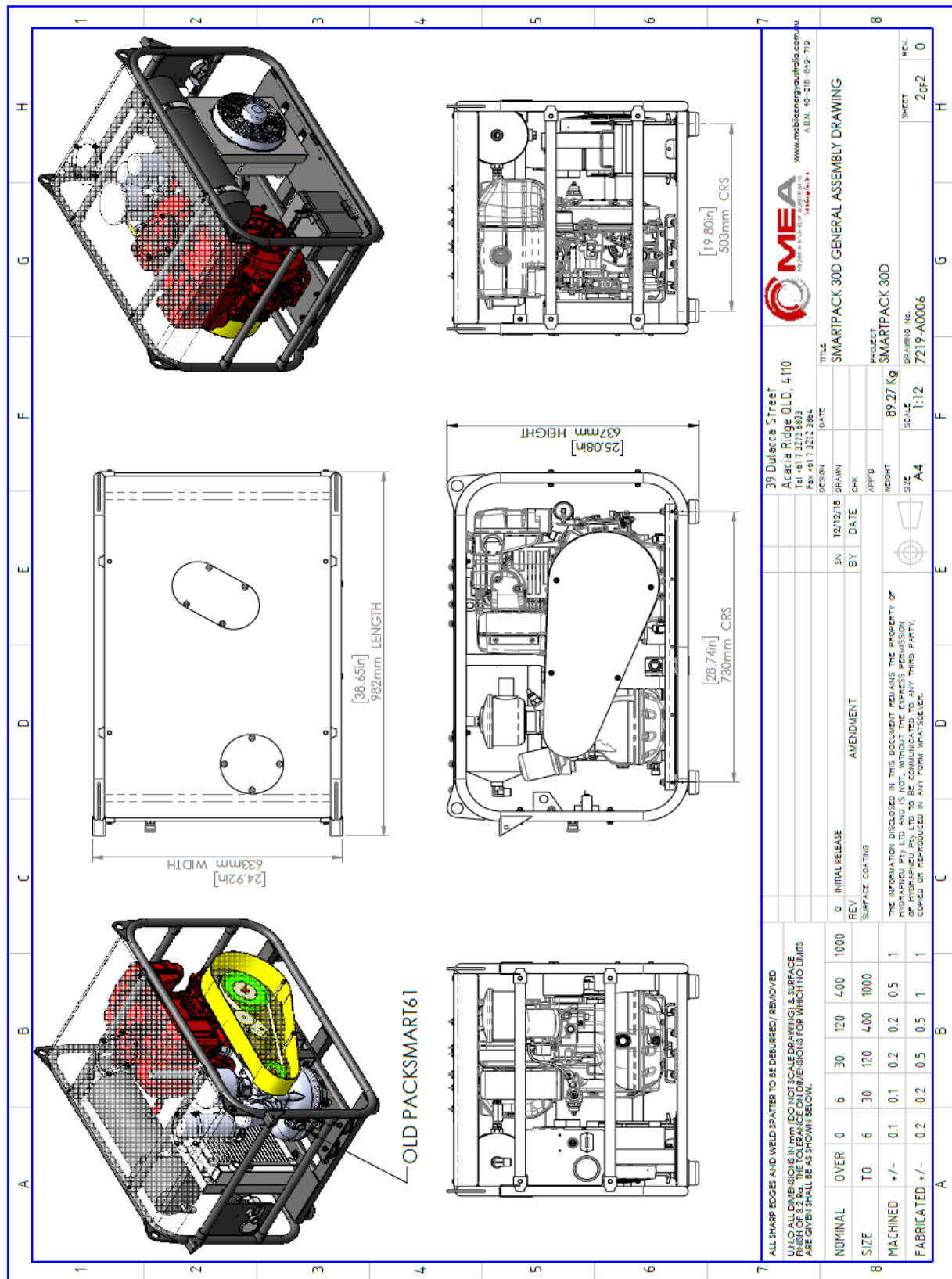
GA DRAWING – OLD FRAMELESS (PETROL ENGINE)



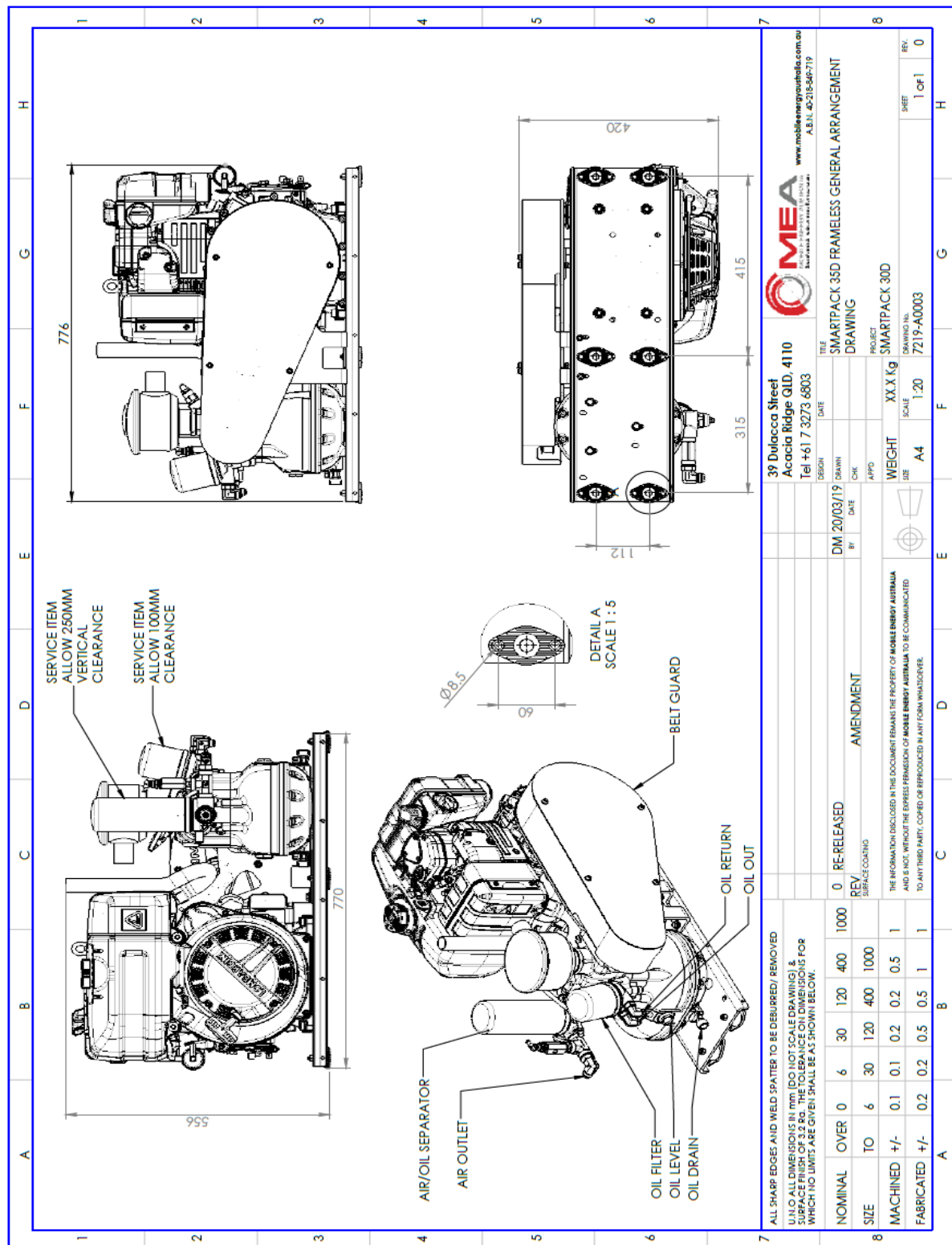
GA DRAWING -NEW PACKSMART61 (DIESEL)



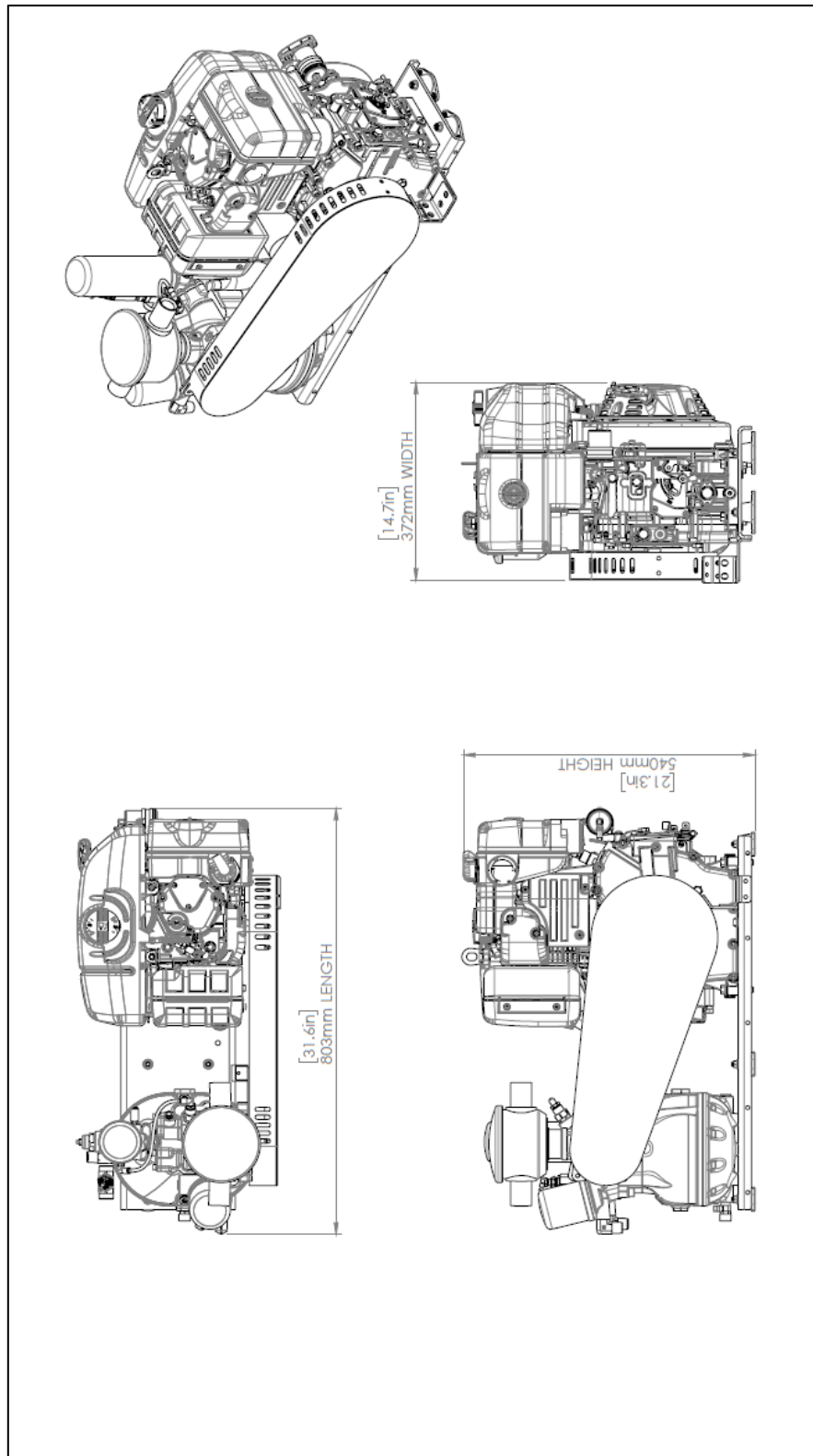
GA DRAWING -OLD PACKSMART61 (DIESEL)



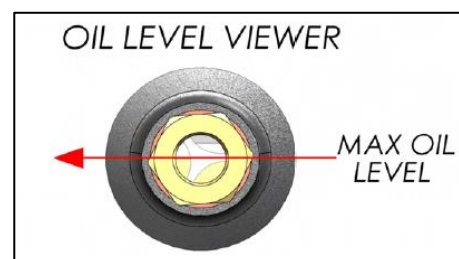
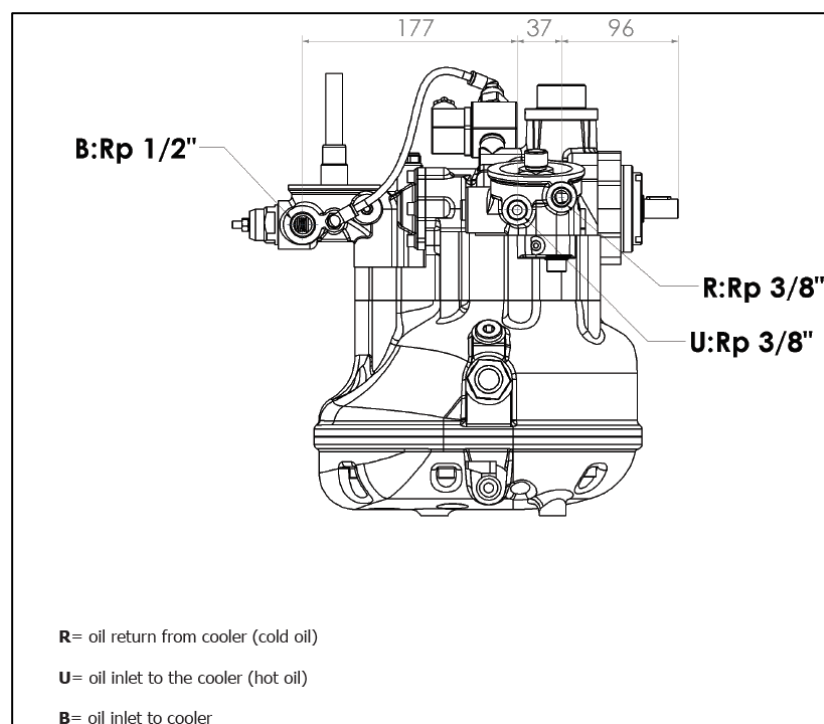
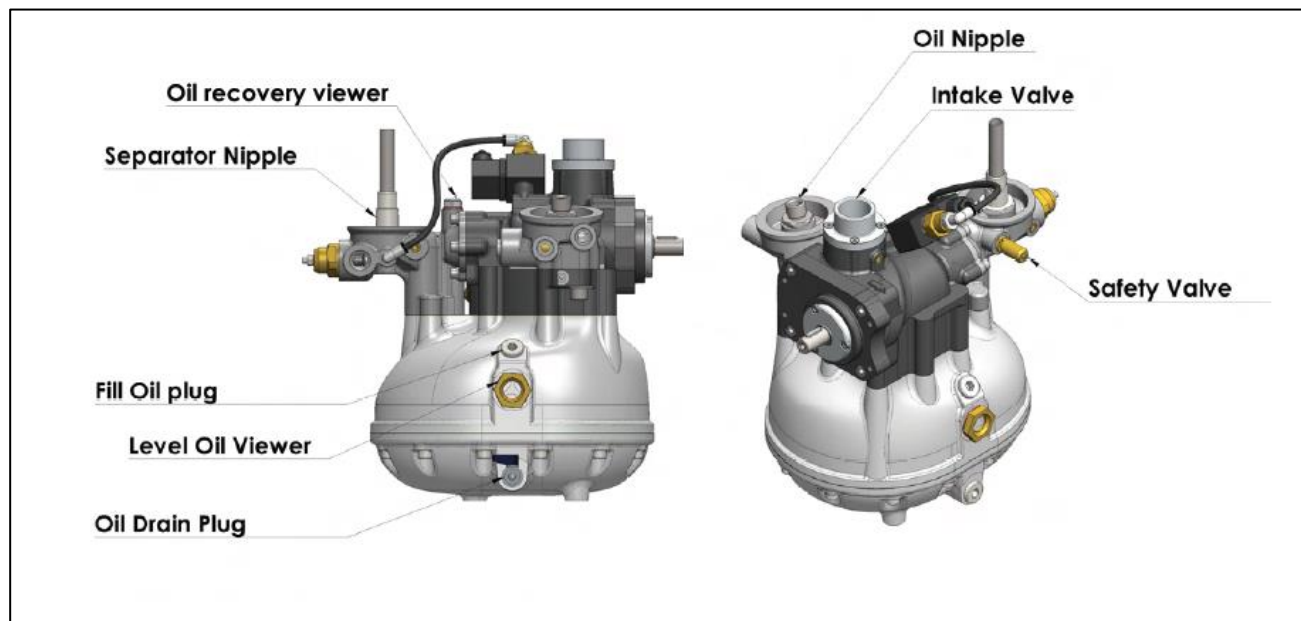
GA DRAWING – FRAMELESS (DIESEL ENGINE)



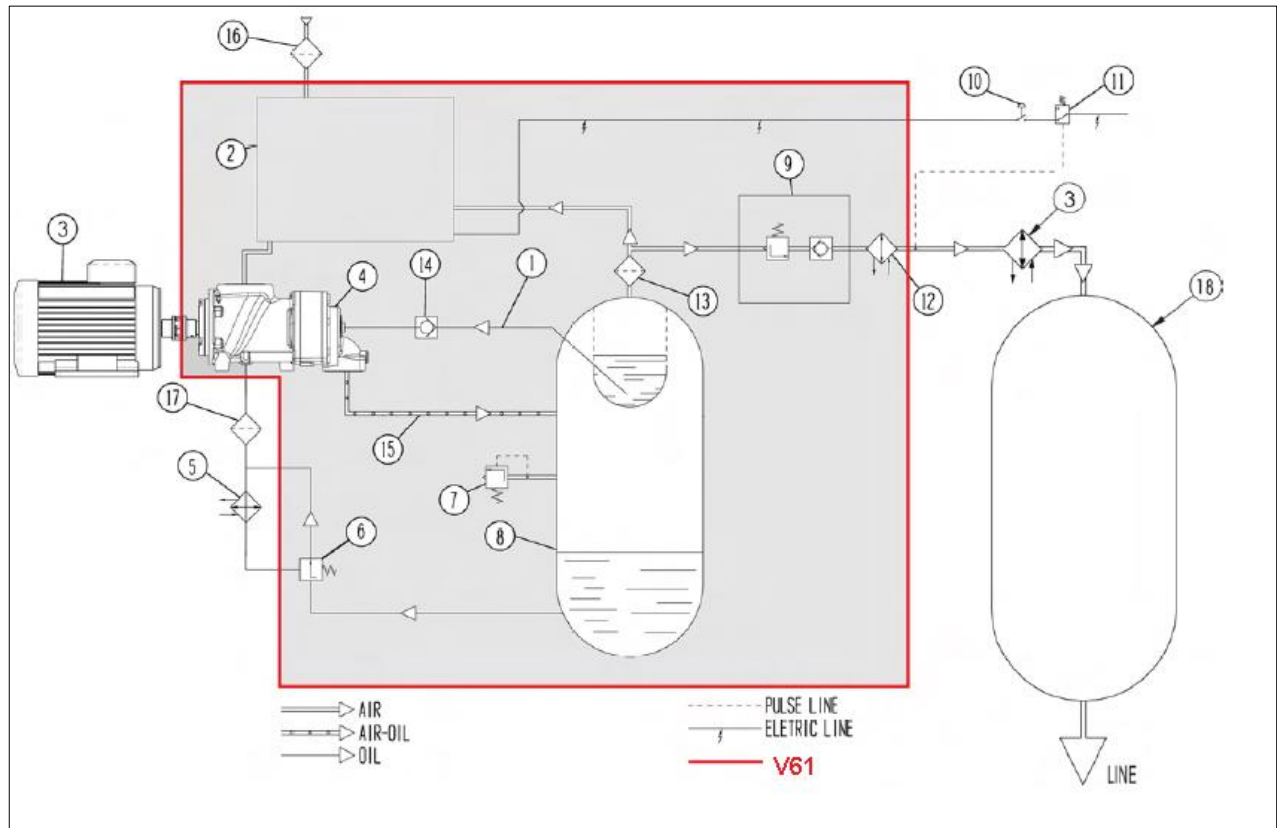
GA DRAWING – OLD FRAMELESS MODEL (DIESEL ENGINE)



V61 Compressor Arrangement

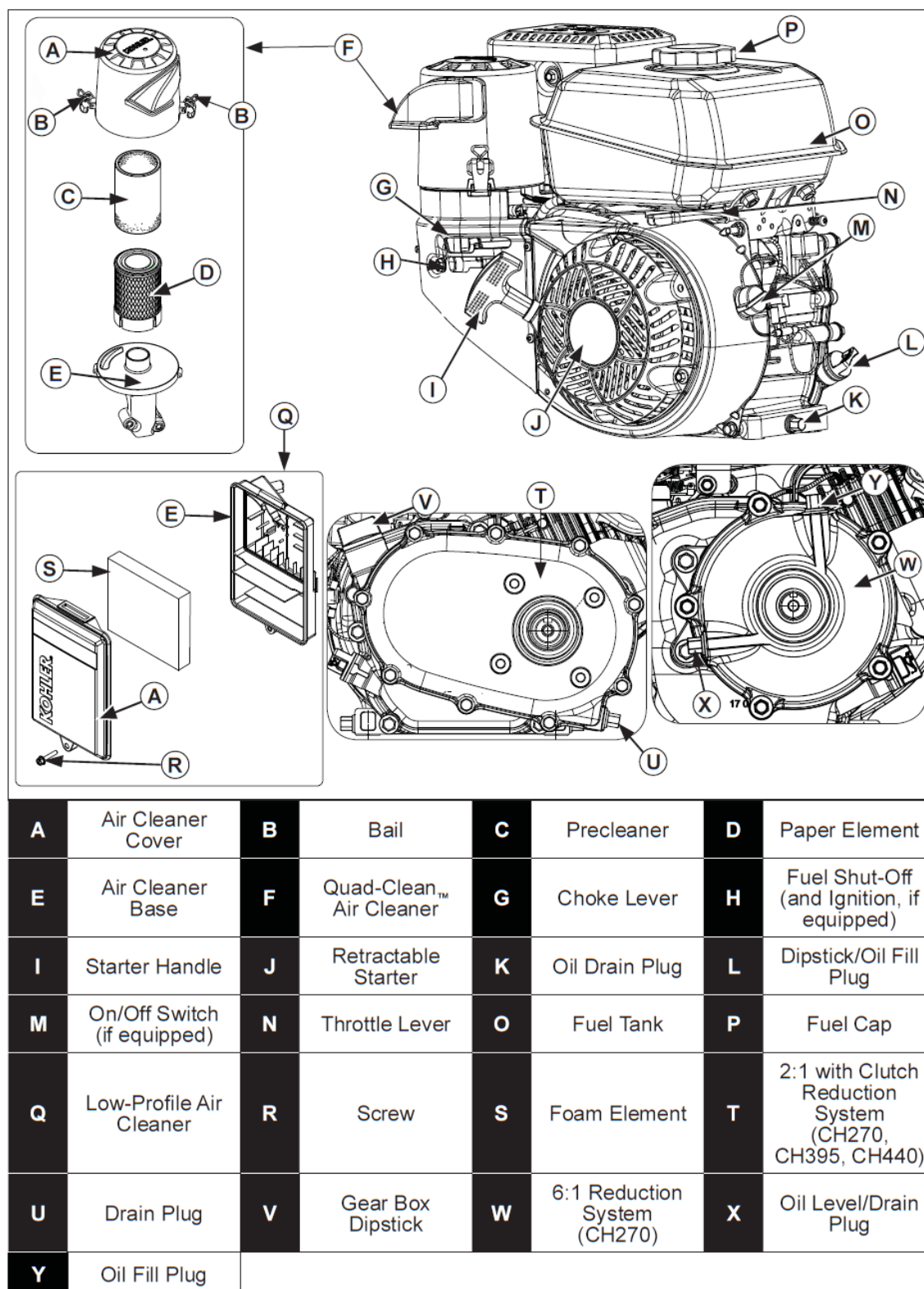


V61 PACKSMART HYDRAULIC DIAGRAM



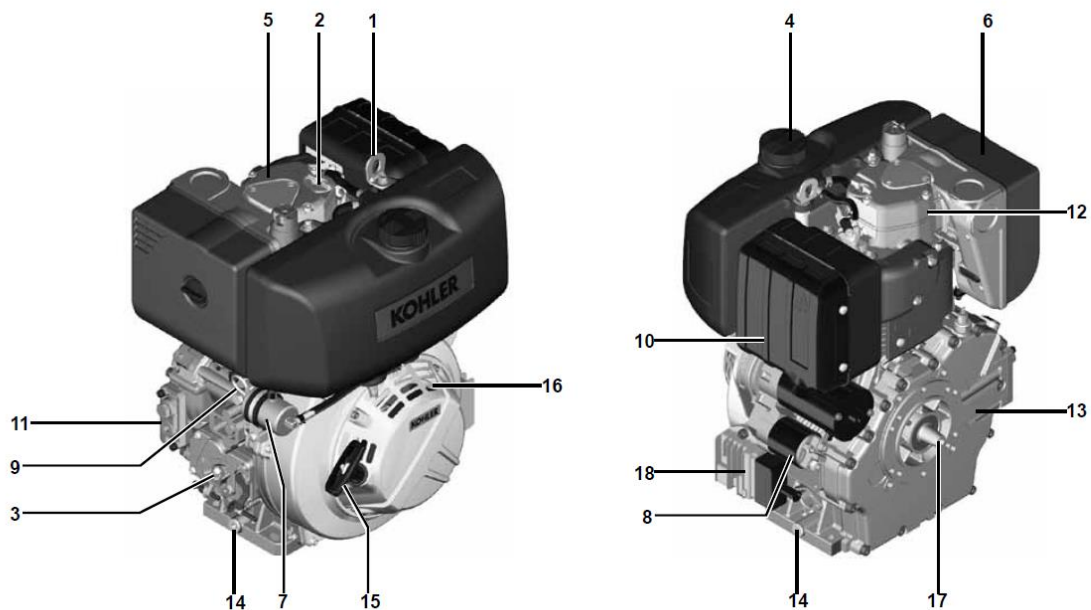
- 1-oil return from separator
- 2-Intake valve
- 4-Screw air-end
- 5-Oil cooler
- 6-Thermostatic valve
- 7-Safety valve
- 8-Air/oil separator tank
- 9-Minimum pressure valve
- 10-Switch load/no load (only for electric version)
- 11-Pressure switch controller (only for electric version)
- 12-Air cooler
- 13-Separator filter
- 14-VMC recovery oil viewer
- 15-Air/oil pipe from air end to separator tank
- 16-Air filter
- 17-Oil filter

ENGINE COMPONENTS OVERVIEW – PETROL



***FURTHER INFORMATION CAN BE FOUND IN THE ENGINE MANUAL**

ENGINE COMPONENTS OVERVIEW - DIESEL

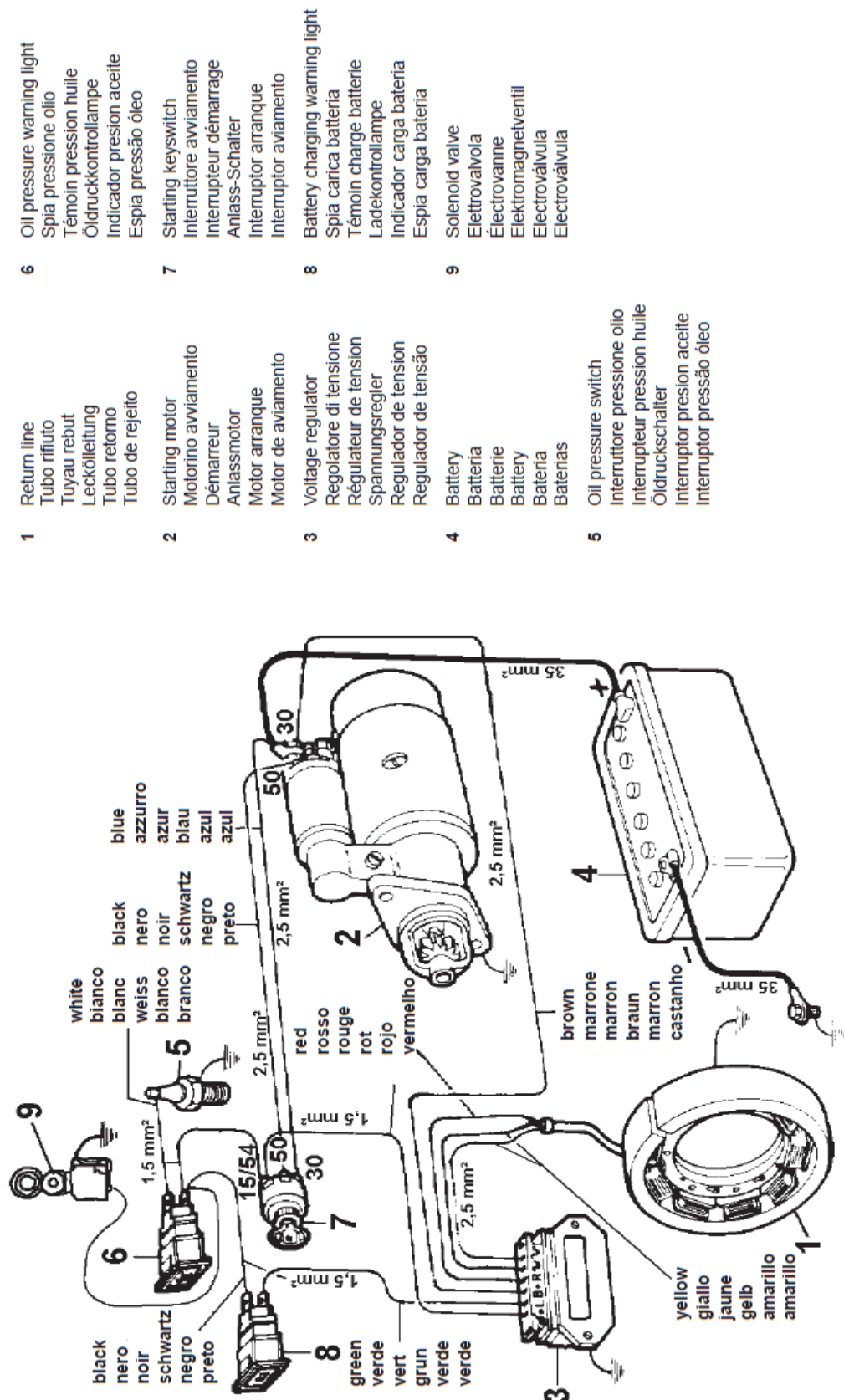


1	Lifting point on the engine
2	Oil refilling hole
3	Throttle lever
4	Fuel inlet
5	Rocker arm cover
6	Air suction intake
7	Fuel filter
8	Starter motor
9	Oil dipstick
10	Exhaust muffler
11	Internal oil filter
12	Cylinder head
13	Crankcase
14	Engine oil drain plug
15	Recoil starter
16	Engine cooling air intake
17	PTO on crankshaft
18	Voltage regulator

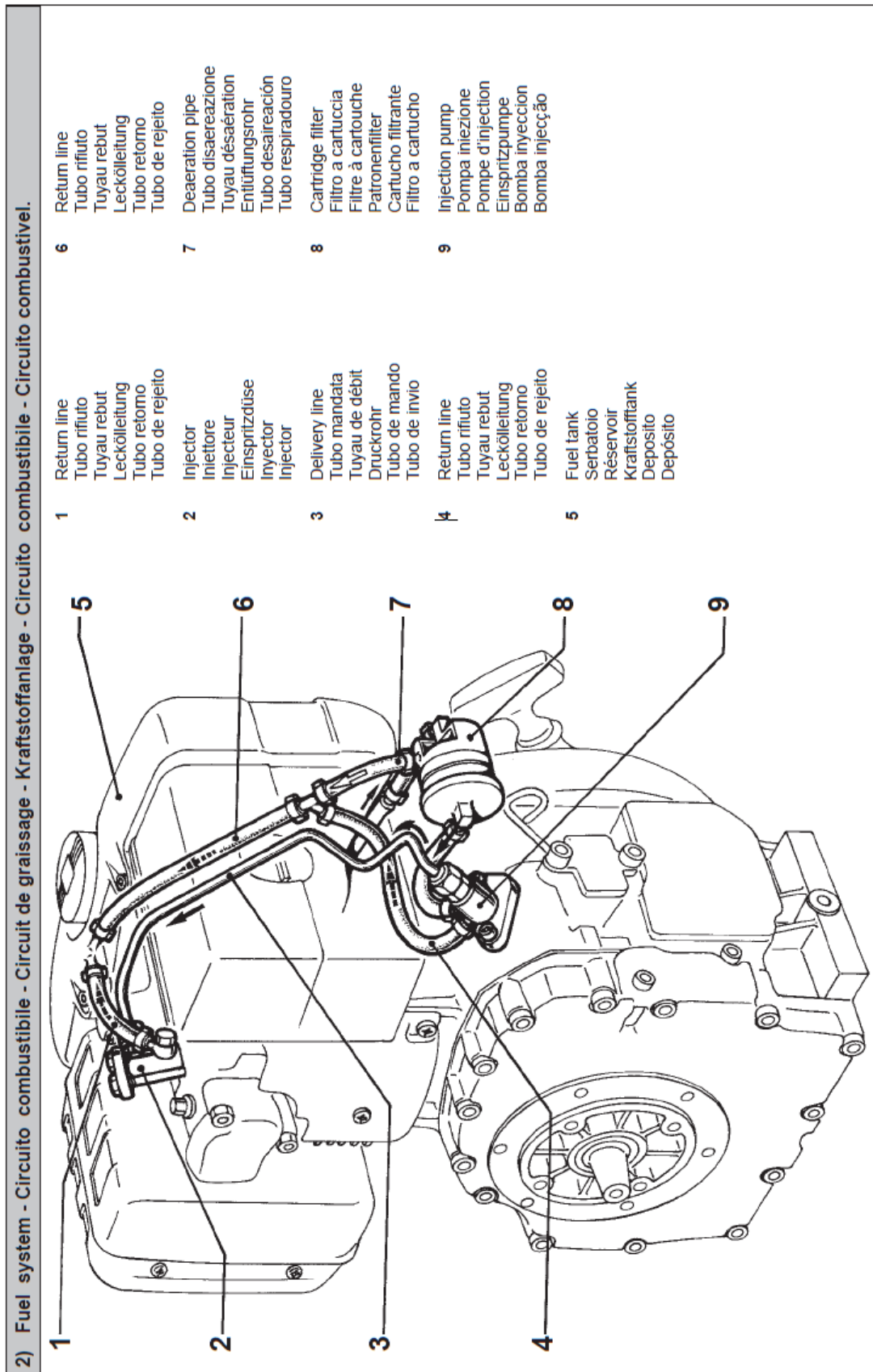
FURTHER INFORMATION CAN BE FOUND IN THE ENGINE MANUAL

KOHLER ENGINE ELECTRICAL SYSTEM (DIESEL)

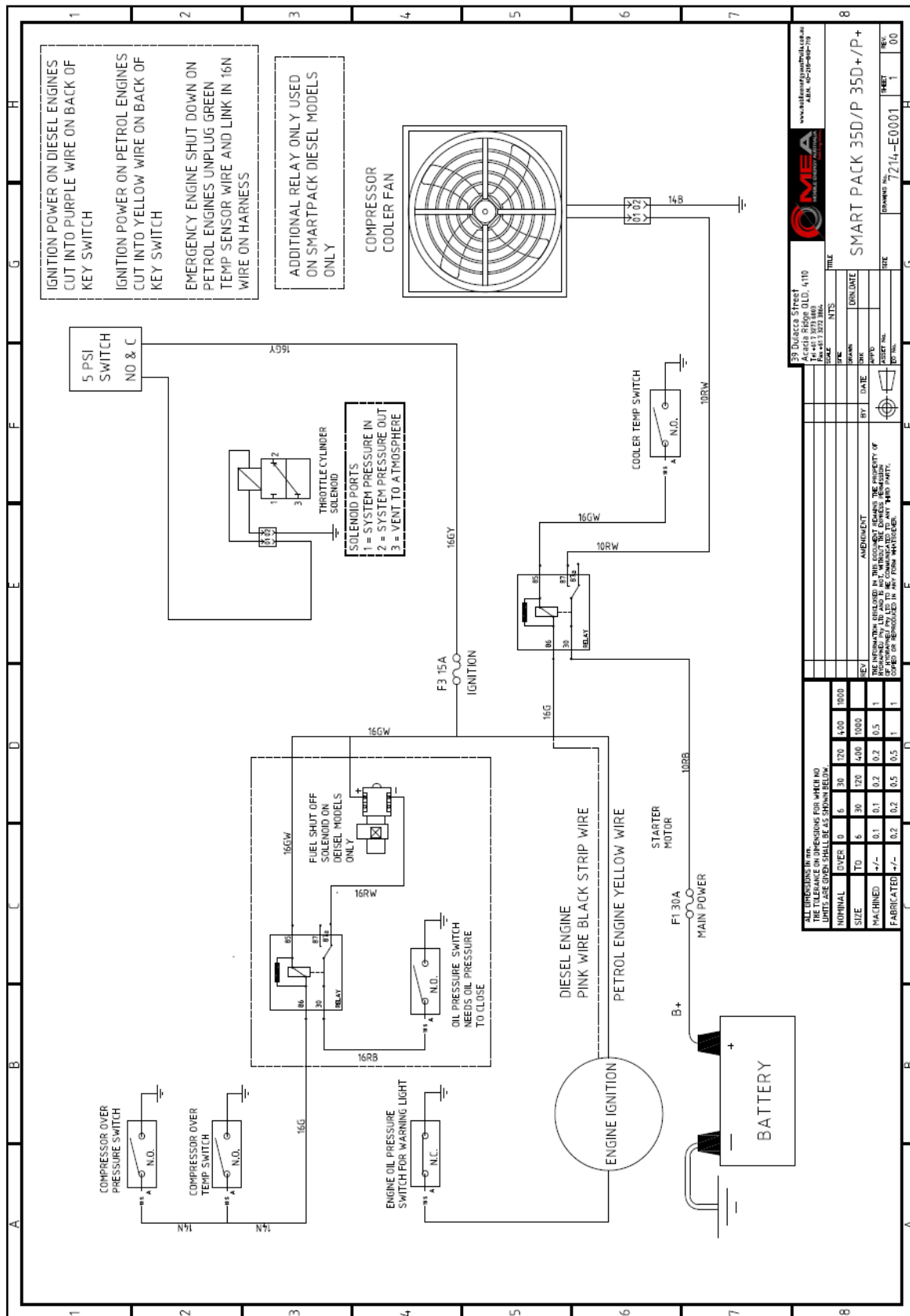
1) Electrical system - Circuito elettrico - Circuit électrique - Elektrische anlage - Circuito eléctrico - Circuito eléctrico - Circuito eléctrico



KOHLER ENGINE FUEL SYSTEM (DIESEL)



Wiring Diagram



10. WARRANTY

1 GENERAL PROVISIONS AND LIMITATIONS

- 1.1 Mobile Energy Australia (hereafter “MEA”) warrants to each original retail purchaser (hereafter “Buyer”) that such product(s) are, at the time of delivery to the buyer, free of manufacture ring defects in material and workmanship.

2 NO WARRANTY IS MADE WITH RESPECT TO

- 2.1 Any product(s) which in the judgment of MEA has been subject to negligence, accident, improper storage, improper installation, improper application, improper operation, or maintenance or has been repaired or altered by others without the written authority of MEA.
- 2.2 Components or accessories manufactured, warranted, and serviced by others.
- 2.3 Damages caused by the lack of normal maintenance, service, and repairs such as the replacement and service of filters and seals.
- 2.4 Damages caused by the lack of normal minimum action, such as adjustments and inspections, replacement of items, such as service filters, seals, and service kits.
- 2.5 Consequential damages caused by product(s) failure.
- 2.6 Any product(s) if other than MEA's genuine components are used in the product(s).
- 2.7 Normal wear and tear of product(s).

3 WARRANTY PERIOD

- 3.1 The warranty period will commence upon installation of the product(s). The returned registration form marks the date of installation. If the registration form is not received, the warranty period will be deemed to commence 35 days from date of shipment from MEA.
- 3.2 The Product(s) is warranted against manufacturer defects in materials and workmanship for a period of 12 months.
- 3.3 The compressor air end is warranted to be free from defects in material and workmanship for a period of two (2) years from the date of installation.
- 3.4 Components supplied under warranty shall be warranted for the remainder of the original warranty period.
- 3.5 MEA factory rebuilt components shall be warranted for a period of 6 months from date of shipment.

4 MEA OBLIGATIONS

- 4.1 The obligation of MEA is limited to repairing or replacing parts, during normal business hours, at an authorized service facility, any component, that in the judgment of MEA are defective.
- 4.2 The obligation of MEA is limited to replacement of faulty parts. No liability is accepted for any freight costs, consequential damages, injuries or expenses directly or indirectly related to the Product(s) failure.

WARRANTY (continued)

5 BUYER OBLIGATIONS

- 5.1 Buyer shall notify MEA of the alleged defect within 10 days of initial discovery and return the allegedly defective component(s) within 35 days of initial discovery.
- 5.2 The Buyer must prepay all costs associated with the warranty.
- 5.3 The Buyer must return components claimed under this warranty to a facility designated by MEA for evaluation, to establish a claim under this warranty.
- 5.4 Buyer shall maintain and service MEA Product(s) in accordance with the MEA Product(s) Owner's

6 WARRANTY REGISTRATION VALIDATION

- 6.1 A registration form is provided to the Buyer with the product(s). The form must be fully completed by the Buyer and returned to MEA upon completion of the installation of the product(s) to validate the warranty. No warranty claims will be processed unless MEA has received a fully completed warranty registration form.

7 DISCLAIMER AND WARRANTY SERVICE

- 7.1 Any labour costs claimed more than MEA's set rate and/or times are not provided by this warranty. If applicable, any labour costs more than MEA rate schedules caused by, but not limited to, location or inaccessibility of the equipment, travel time or labour provided by unauthorized service personnel are not provided by this warranty.
- 7.2 This warranty is in lieu of all other warranties or obligations expressed or implied. MEA expressly disclaims all implied warranties of merchantability or fitness for a particular purpose.
- 7.3 Warranty claims must be pre-authorized by MEA, and the components returned via prepaid freight using the designated "Returned Merchandise Authorization" number and form.

PLEASE NOTE:

Both the MEA Product Registration Form and the Kubota Engine Warranty Registration Form MUST be returned to MEA in the stamped, self-addressed envelope.

WARNING!!!

Failure to return PRODUCT WARRANTY REGISTRATION FORMS detailed above may result in the delayed processing of warranty claims.

MOBILE ENERGY AUSTRALIA - CONTACTS

Sales

Email: sales@mobileenergyaustralia.com.au

Office: 07 3273 6803

Spare Parts

Office: 07 3273 6803

Email: sales@mobileenergyaustralia.com.au

Service

Office: 07 3273 6803

Email: workshop@mobileenergyaustralia.com.au