



Construction Environmental Management Plan
Land At, HIGHER ROAD, HALEWOOD

Introduction

This Construction Method Statement has been prepared by Miller Homes to enable the discharge of condition 6 of planning approval 19/00104/FUL for development approved at the above site.

This statement seeks to deal with the following:

- Methods for the mitigation of noise and vibration from building works, including any piling works, and also for the operation of any temporary power generation or pumping plant which will operate overnight;
- Control of transfer of mud out of the site - details of wheel washing facilities including location and type;
- Methods for the control of dust;
- Details of methods for pest control;
- Location and layout of any site compound(s) including identification of areas for the storage of plant and materials, loading/unloading and turning areas for delivery vehicles (for each phase as necessary) and the methods of loading and unloading of plant and materials;
- Management of deliveries including prevention of waiting/layover of construction related traffic on the highway; measures for the control of traffic to and from the site; and consideration of any temporary traffic management arrangements which may be necessary during periods of construction. Note reversing on the highway is not permitted without a Banksman;
- Identification of permanent on-site contact and/or traffic manager as main point of enquiries or issues arising from construction activities;
- The parking of vehicles of site operatives and visitors;
- Adequate provision for addressing any abnormal wear and tear to the highway;
- The details of the design, siting and maintenance of any security hoardings;
- There shall be no burning of materials on-site during construction work without the prior written approval of the Local Planning Authority;
- Site Waste Management - details shall reflect the submitted CEMP in relation to how waste materials on site will be managed for the earthworks and construction phase. The SWMM will detail how each waste stream will be managed; the projected waste volumes and the Duty of Care checks on all waste carriers and permitted disposal/ treatment sites;
- Hours of construction work and deliveries.

The scheme shall include details of all dust suppression measures and the methods to monitor emissions of dust arising from the development. The approved Construction and Environment Management Plan shall be implemented and in force throughout the construction phase of the development.

It is also relevant for the planning application seeking temporary consent for an access point via Finch Lane.

The access point will only be utilised during the construction phase of the development and will be restored to its previous condition after its removal. Conditions attached to the separate planning application for the temporary access will ensure that the access is only used for a temporary period.

Times of construction activities on Site

Due to the additional precautions that are necessary and impact on build programme of COVID-19 means that we need extended hours to maintain build and delivery houses in a timely and safely manner. The hours proposed are **7:30am-9:00pm Monday to Friday and 8:00am-17:00pm Saturday.**

Miller Homes would like the above construction working hours would cease on **30th September 2021.**

After this date construction works (including deliveries) associated with the development hereby permitted shall not take place except between the hours of Monday to Friday (08.00 to 18.00) and Saturdays (08.00 to 13.00). No construction activities or deliveries shall take place on Sundays or Public and Bank holidays. All pile driving operations, if required, shall be limited to the hours of 08:30 to 17:30 hours Monday to Friday, 09:00 – 13:00 hours on Saturdays and not at all on Sundays and bank holidays.

Working Restrictions within Extended Hours

For clarity extended hours (in addition to normal hours) are 7:30am-8.00am and 18.00pm-21:00pm Monday to Friday and 13:00pm-17:00pm Saturdays.

1. No pile driving activities, if required, before 8:30am or after 17:30. These operations are to be within normal working hours.
2. No deliveries are to arrive before 8:00am or after 18:00pm.
3. No construction activities or deliveries shall take place on Sundays or Public and Bank holidays.
4. No external works after 18:00pm.
5. Internal works within these extended hours to comprise of joinery, plastering, electrical, plumbing and decorating. No activities with high noise levels/disturbance such as power tools, electric saws etc are to be used as these will cause complaints.
6. Saturday hours 8:00am-17:00pm.
7. Leaflet drop to surrounding residents – containing description of the works that will take place out of normal hours, together with a contact name / number.

On commencement of piling the council must be notified with details of vibration monitoring to be undertaken.

Site Contact

Site Manager: Bobby Fearnough. Mobile number: 07525202812

The Parking of Vehicles of Site Operatives and Visitors

All site operatives and visitors must park their vehicles on site. A temporary designated car park will be constructed on site. All visitors and site operatives must utilise the car park only. If additional parking is required this is to be provided within the development. Please see the attached Route of Build Plan for further details and location.

Loading & Unloading of Plant and Materials

Vehicular and pedestrian access to the site compound will be as indicated on the attached Route of Build Plan. Delivery vehicles will be provided with directions to the site and be required to turn off engines to avoid nuisance upon arrival. A delivery vehicle lay-by and wash down area will be provided at the entrance of the site compound. Delivery constraints will be identified to all suppliers and trade contractors. Deliveries of materials, plant and equipment will be strictly controlled and co-ordinated to prevent congestion and disruption to traffic. Through school term time there are to be no deliveries between the hours of 8:30 – 9:30 and 14:30 – 16:00 to avoid school drop off and collection.

Storage of Plant and Materials used in Constructing the Development

The location of the store and plant materials has been carefully located to minimise noise disruption to local residents. These will be stored in a secured compound. Please see the attached Route of Build Plan for exact location.

Oil and Chemical Storage – These are to be stored within our site compound area (compound location noted on the attached Route of Build Plan). All fuel will be stored in a double skinned tank or a tank in a suitable bunded area in compliance with the Control of Pollution (Oil Storage) (England) Regulations 2001. Refuelling activities will only be undertaken by suitably qualified persons and spill kits will be available within the site compound.

All hazardous liquids e.g. oils, lubricants, chemicals and tins of paint be stored in a segregated area in a suitable locked COSHH container. COSHH assessments will be available nearby for information in the event of a spillage.

Water Resources and Flood Risk

Surface water and ground water resources could be impacted from pollution, for example fuel spillages, dust and waste.

There is potential for the creation of silt during periods of heavy rainfall which if not managed could cause silt pollution which could lead to:

- Pollution of watercourse and harm to watercourse fauna;
- Flooding; and
- Blocking drains causing nuisance issues.

Mitigation: -

Measures to manage spillages, dust and waste are detailed in other sections of this document. All the diesel tanks will be bunded and diesel spill response kits will be located in high-risk areas susceptible to spills. Fuel spill kits are stored in the site compound and at appropriate locations across the development site.

All options are to be considered for occurrence of silt/sediment runoff. These include:

- Leaving grassy areas as catchment or settlement areas;
- Battering or sheeting oil stockpiles and locating them away from the watercourses
- and drains, where possible;
- Protection of drains;
- Use of grips and straw bales;
- Silt fencing; and
- Dewatering.

Location of the Site Compound

The location of the site compound has been strategically placed away from any neighbouring occupier. The location can be found on the attached Route of Build Plan.

Wheel Wash Facilities

During construction works an appropriate wheel-washing system will be provided to remove mud, stones and any other extraneous materials from the wheels and chassis' of construction vehicles exiting the site and all loads of construction materials, excavation spoil or other such matter shall be fully covered in order to ensure that no material leaves the site attached to the vehicle which might subsequently be deposited on the highway. The exit from the wheel washing system shall be constructed from a hard, nonporous surfacing material and sited as far away from the exit to the highway as is possible given the constraints of the site and the surface shall be kept clean at all times.

Given the scale of the project, the system that will be installed will be a one man operated power hose that will be used when needed. This is to be located adjacent to the site compound/site entrance away from all local water courses. No waste water from this process is to be discharged via a watercourse. All highway gullies on site are to be fitted with gully bags to act as a filter to prevent any debris entering the system.

Waste water resulting from the wheel washing system shall be disposed of on site and shall not be allowed discharge into the public sewerage system without prior removal of soil, stones and any other suspended material. Wheel washing will be kept under weekly review, with additional measure taken as necessary based on current site conditions and activities.

In addition to providing active wheel wash facilities at the site exit, Miller Homes will also arrange for regular (daily or weekly, depending on the time of year and activities on site) visits by road sweepers/cleaners. They will also be brought in to deal with any emergency issues.

Measures to control the emission of dust and dirt during construction

This section has been written in line with the "The control of dust and emissions from construction and demolition, Best practice guidance".

Management of dust and dirt during construction will be given a high priority as to avoid the spread onto any highways accessing the site. The main area of concern is the spread by vehicles entering and leaving the site, this will be managed by ensuring our access roads are dampened down which will be undertaken by a bowser towed behind a vehicle.

Methods of dust suppression during manual works are to be taken into consideration within the Contractors method statements. This includes dust suppression kits using water where applicable to minimise the amount of dust created etc.

A Scheme for Recycling/Disposing of Waste Resulting from Demolition & Construction Works

Miller Homes is acutely aware of the effects that the disposal of waste can have on the environment and our policy is clearly to reduce wastage in all possible areas. One of the key principles of the approach is to make the operatives more responsible for waste and waste management. This is embodied in the preference for each sub-contractor to be responsible for supplying its own materials – this ownership results in the minimising of unnecessary waste. These concepts will be incorporated

within the sub-contract documentation, such that each sub-contractor considers the most environmentally acceptable solution to the packaging to their deliveries. A management plan will be developed to organise the segregation of waste into separate containers so that recyclable items such as metals and timber can be recovered.

- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Attention to material quantity requirements to avoid over-ordering and generation of waste materials;
- Re-use of materials wherever feasible i.e. re-use of excavated soil for landscaping.
- Segregation of waste at source where practical; and re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or reprocessing. Burning of wastes or unwanted materials will not be permitted on-site. All hazardous materials including chemicals, cleaning agents, solvents and solvent containing products will be properly sealed in containers at the end of each day prior to storage in appropriately protected and bundled storage areas.

As the new buildings become enclosed, the rubbish will be collected in lightweight floor based wheeled skips that can manoeuvre around the configuration of the units. The skips will then be taken to ground floor level by hoist, and either disposed of into larger skips, or if suitable, placed into a compactor to reduce the volume of the waste before it is taken off-site.

Stockpiles and Storage Mounds

Miller Homes will make best endeavours to avoid the use of long-term stockpiles on site wherever possible. If necessary the following measures will be put in place:

- Ensure that stockpiles exist for the shortest possible time.
- Do not build steep sided stockpiles or mounds or those that have sharp changes in shape.
- Whenever possible keep stockpiles or mounds away from site boundary, sensitive receptors, watercourses and surface drains.
- Re-use hard core material where possible to avoid unnecessary vehicle trips.

On this development temporary soil stockpiles will be located within the plot boundaries and away from the highway, drainage and any existing watercourse. Any topsoil stockpiles are to be grass seeded as to increase in stability of soil.

Noise and Vibration

Noise and vibration will be caused during the construction of the proposed development. Some of the site activities producing this are: -

- Traffic movements;
- Plant movements;
- Demolition operations;
- Drilling and piling operations;
- Excavating operations;
- General construction activities; and
- Emergency sirens.

To avoid nuisance been caused by any of these activities the following mitigation measure will be in place throughout the construction of the development: -

- Noise and vibration will be limited to the core working hours previously define.

- Contractors must use “best practicable means” (BPM) to minimise the nuisance from noise and vibration.
- The maintenance and location of plant will be planned to minimise noise levels and screening will be used where necessary.
- Adherence to noise limits should be included in contractual agreements with contractors. General induction training for site operatives and specific training for staff having responsibility for particular aspects of controlling noise from the site.
- Use of most environmentally acceptable and quietly operating plant and equipment appropriate to the works with emission levels limited to relevant EC Directive/UK Statutory Instrument levels and levels quoted in BS5228.
- Intermittently operating plant will be shut down in the intervening periods between operations.
- Any compressors brought on to site would be silenced or sound reduced models fitted with acoustic enclosures.
- All pneumatic tools will be fitted with silencers or mufflers.
- The excavation and demolition of existing structures will, wherever possible, be undertaken without the use of pneumatic breakers.
- Wherever possible, the use of hydraulic attachments or other means of crushing concrete and hard materials will be used in preference to pneumatic breakers.
- Where the use of impact hammers is necessary, their attachment to larger and heavier excavators will be employed to reduce the level of vibration.
- Care will be taken when erecting or striking scaffolds to avoid impact noise from banging steel. All operatives undertaking such activities will be instructed on the importance of handling the scaffolds to reduce noise to a minimum.
- Deliveries will be programmed to arrive during daytime hours only. Care will be taken when unloading vehicles to minimise noise. Delivery vehicles would be routed so as to minimise disturbance to local residents. Delivery vehicles will be prohibited from waiting on the highway or within the site with their engines running.

Mitigation measures for the Construction Phase of the Development:

Issue	Control Measure
Site planning	• Erect solid barriers to site boundary • No bonfires • Plan site layout - machinery and dust causing activities should be located away from sensitive receptors • All site personnel to be fully trained • Trained and responsible manager on site during working times to maintain logbook and carry out site inspections • Hard surface site haul routes
Construction traffic	• All vehicles to switch off engines - no idling vehicles • Effective vehicle cleaning and specific wheel-washing on leaving site and damping down of haul routes • All loads entering and leaving site to be covered • No site runoff of water or mud • On-road vehicles to comply to set emission standards • All non-road mobile machinery (NRMM) to use ultra-low sulphur tax-exempt diesel (ULSD) where available • Minimise movement of construction traffic around site • Hard surfacing and effective cleaning of haul routes and appropriate speed limit around site
Earth moving works	• Minimise dust generating activities • Use water as dust suppressant where applicable • Cover, seed or fence stockpiles to prevent wind whipping • Re-vegetate earthworks and exposed areas • If applicable, ensure concrete crusher or concrete batcher has permit to operate

Site Monitoring

If best practicable means are followed correctly, then formation of dust and harmful emissions from the sites should be minimised as much as possible. However, Miller Homes will look to continuous site monitoring in order to manage dust and emissions from the construction.

Although we will use our best endeavours to minimise and manage the dust and dirt during construction there may be a minimal amount which would spread from the site, this will be managed by a road sweep which will attend site and ensure all highways are cleaned of any construction dirt.

To allow us to monitor the overall impact of our construction on the neighbouring occupiers an information board will be placed at the front of the site with the site details and contact number for residents to contact Miller Homes' customer care department through our "Miller Respect" scheme.

Adverse Wear and Tear on Highways

De-lap survey of highways to be made prior to site start. Any adverse wear and tear on highway surfaces to be addressed at final surfacing of development roads.

Piling

There are 8no plots requiring Driven Pre-Cast Concrete piles, located within the middle of the site. These are approx. 90m from nearest public interface at the southern boundary and approximately 150m from the nearest existing property. This distance is sufficient to mitigate the effects of noise and vibration.

Works are expected to take approx. 1-2 weeks in Spring/Summer 2022. The piling working hours will not exceed Monday to Friday 08:30 to 17:30, Saturday 09:00 – 13:00 hours and not at all on Sundays and bank holidays.

Preventing Infestation (insects) & Discouraging Pests & Vermin

Please see **Appendix 1**, which includes an extract from our demolition contractors Construction Phase Plan, which outlines our strategy for the above. In addition to this we have undertaken ecological surveys on this site prior to our start on site. No issues with vermin were reported in the ecological survey reports. Follow up weekly site inspections are being carried out by our appointed ecologist to monitor the above. In addition to this we have instructed Rentokil to attend site as of week commencing 24th May 2021. Rentokil have confirmed in their inspection that there is no infestation on site and that or development is unlikely to be the source of any vermin.

Generators

Were required generators will be used between the hours stated in above section regarding working hours. Generators will be manually switched on and off, timers will not be used.

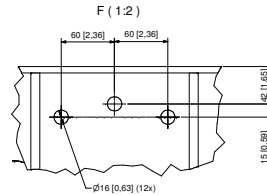
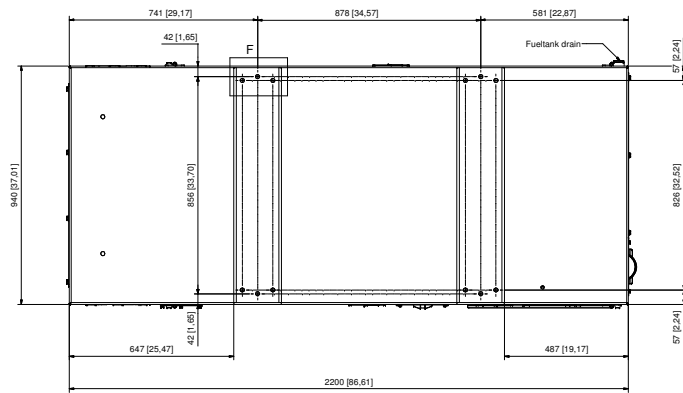
Please see extract in **Appendix 2**, for further details of the generators that will be used on this site.

Appendix 1**MC3581 – RSPCA HALEWOOD
CONSTRUCTION PHASE PLAN**

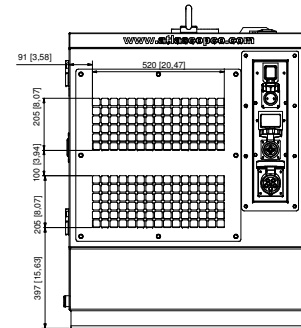
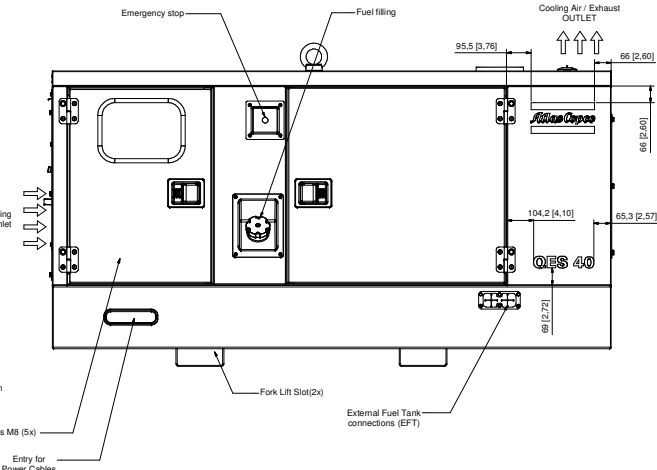
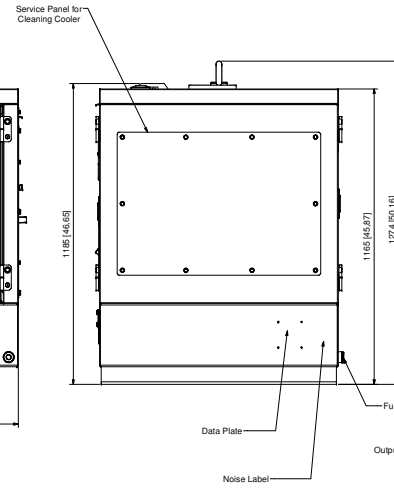
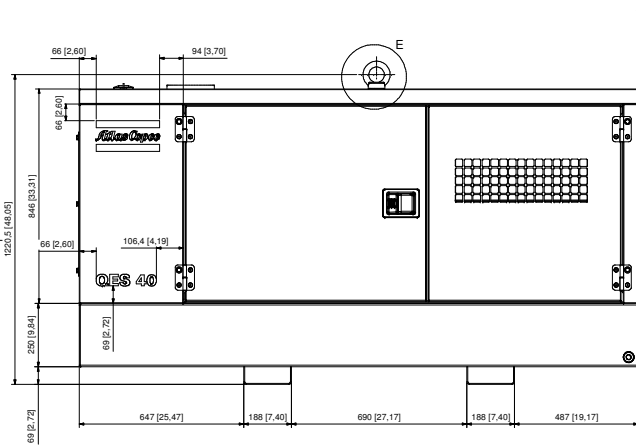
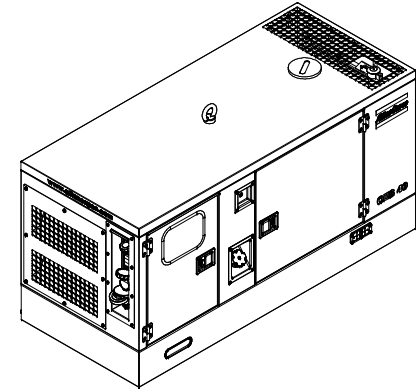
10	Preventing Infestation (insects) and Discouraging Pests & Vermin	Canteen & welfare facilities are to be regularly cleaned so that food waste & residue does not accumulate, attracting wild animals & insects. Ensure all canteen and food waste is disposed of in securely lidded bins – bin lids should be kept closed at all times. Littering on site will not be permitted - all persons to use the bins provided. Arrange appropriate and regular waste collections or removal to ensure perishable food waste does not remain on site for extended periods. Keep all food stuffs and perishables in closed cupboards or a refrigerator as appropriate – any expired food should be placed in bins before it perishes. Remove and correctly dispose of any fly-tipped or wind-blown litter regularly. Ensure all welfare facilities are correctly connected / plumbed so as to avoid any odours or leakages. Remain vigilant for signs of any potential infestations on site. If pests or vermin are discovered on site, or any signs of damage potentially caused by them, pest control measures will be implemented, which may involve engaging the services of a professional pest control contractor, subject to the type and level of infestation.
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Appendix 2

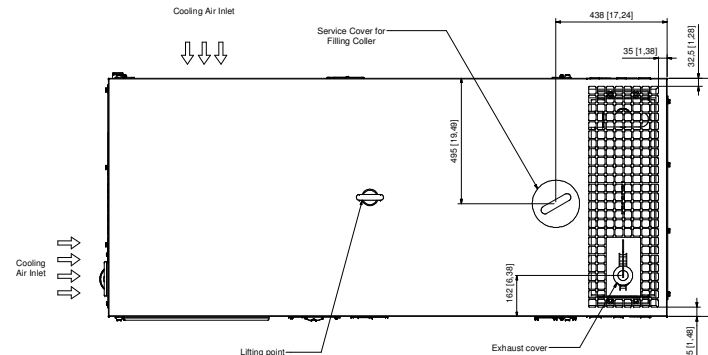
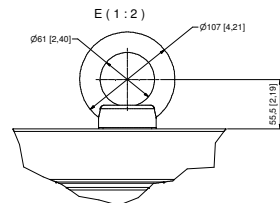
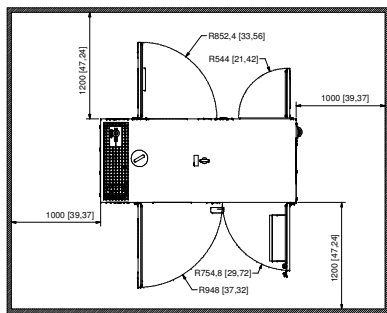
Generator details



Isometric view (1 : 10)

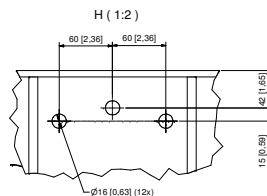


MAINTENANCE SPACE (1 : 20)

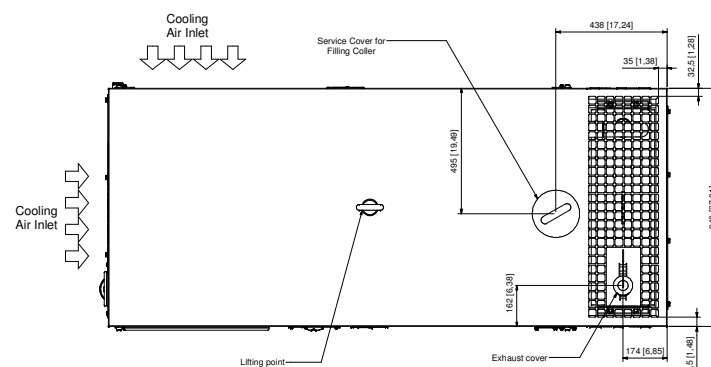
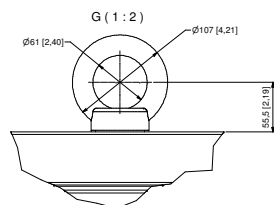
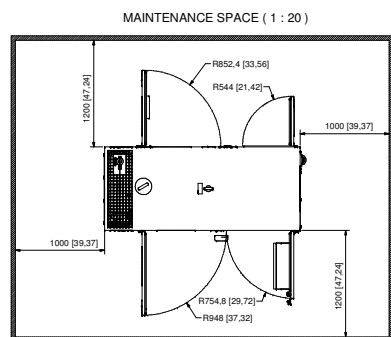
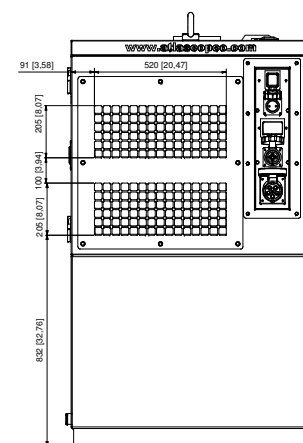
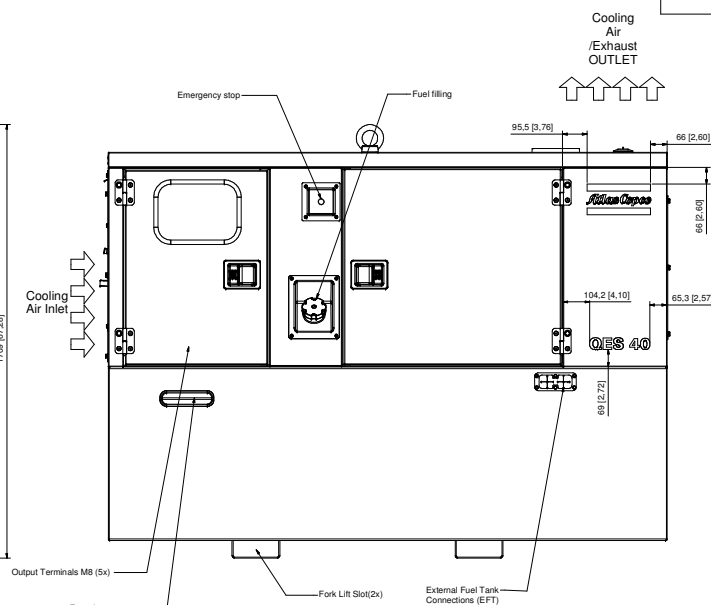
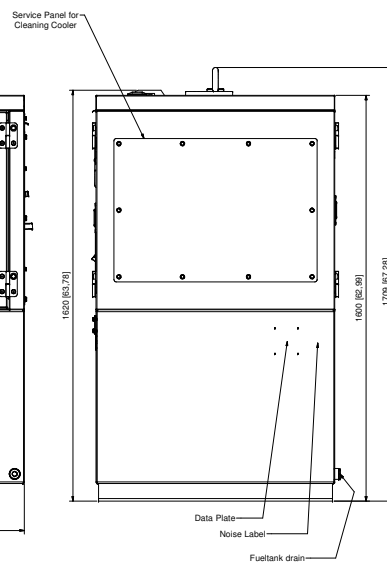
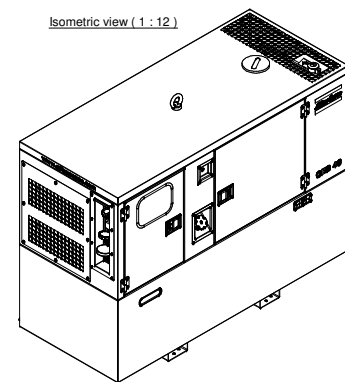


Note: Dimensions are in inches.

Tolerances, if not indicated, according to ATLAS COPCO STANDARD CLASS									
Name DIMENSION DRWG				QES 30-40				Inventory class 100 (Standard)	
Material									
Treatment								INV	
				Scale 1:10		Family		AC Compressors	
Drawn by: EGF/ALZ				Drawn by:		Replaces		Drawing number EGF	
DATE		Work at		Rev 30-40		Project name		Notes	
Approved		See checked		Post checked		Approved		1636005162	
						Date 2001/01/15			

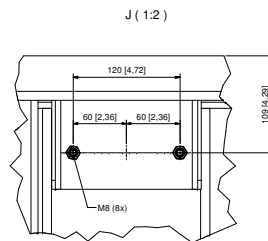
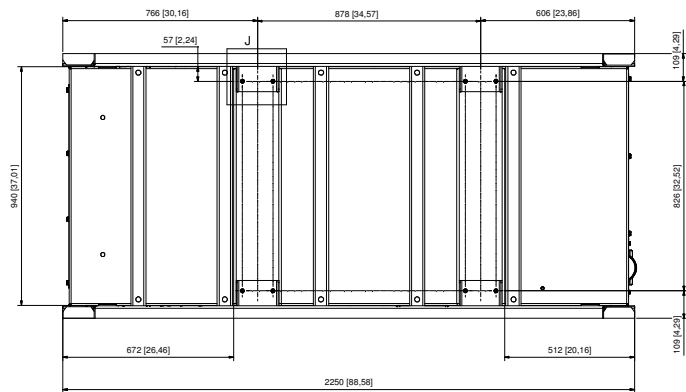


Optional: 48 h



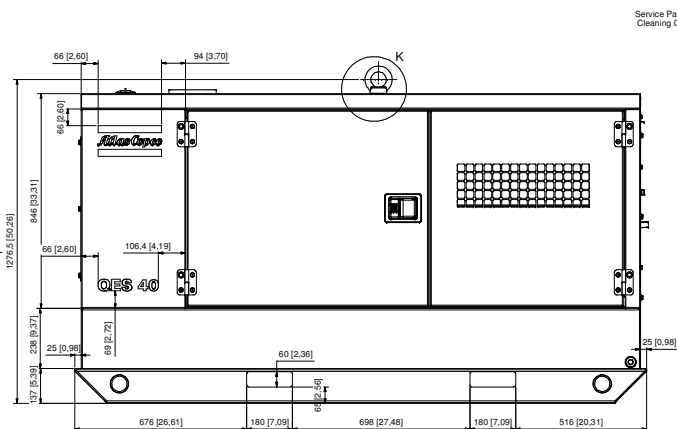
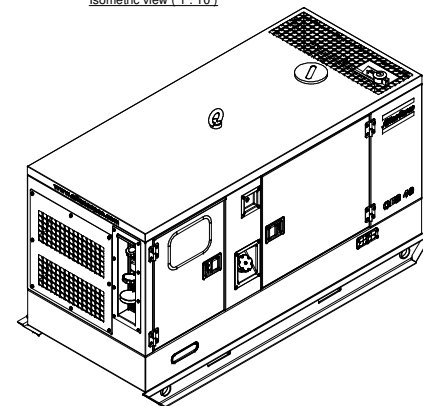
Telephone, if not indicated, according to:							
ATLAS COPCO STANDARD CLASS							
Name				QES 30-40		Inventory Class	
Material						ISO Identification	
Treatment						INV	
				AQ		Drawing number	
Size 1 1/2		Family		Complies		ESF	
Driven by: GSF, J62		Stroke m.		Replicates			
Compression G		G		kg		Stroke L	
Flow checked		Flow checked		Approved		Date	
201020		200605		20030305		16360055162	
Approved							

Designation Sheet 2
1636005162

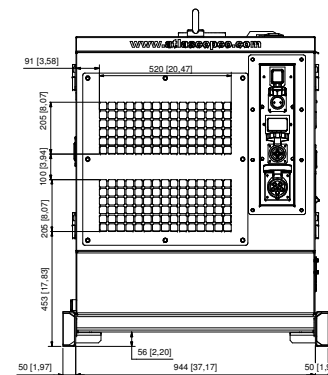
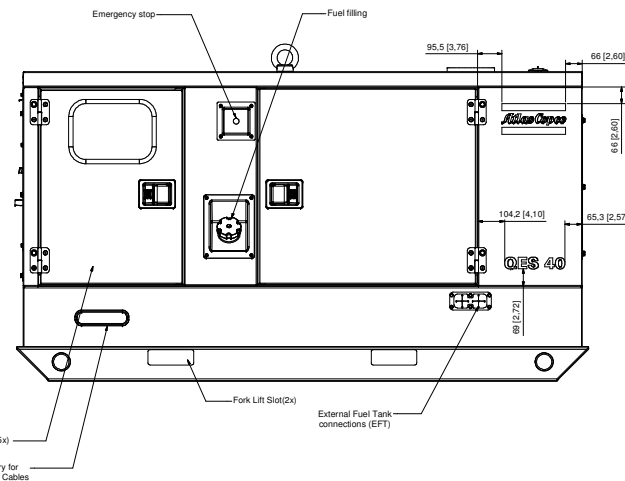
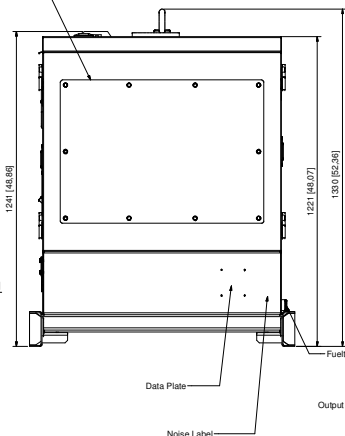


Optional: Skid

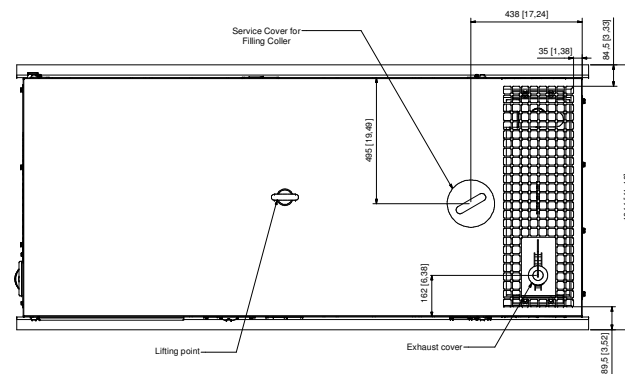
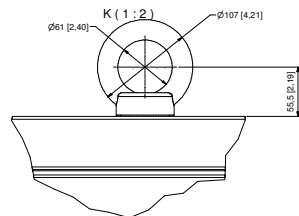
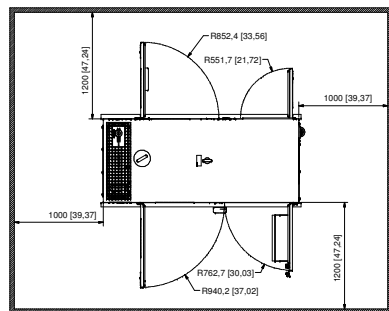
Isometric view (1 : 10)



Service Panel for Cleaning Cooler

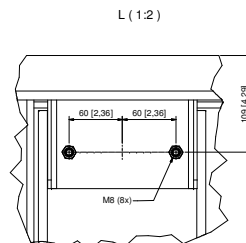
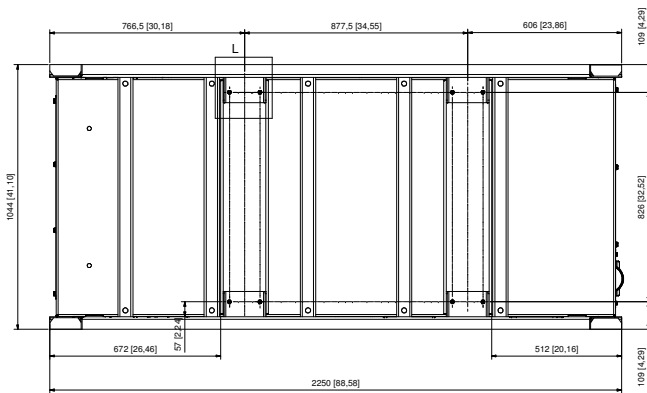


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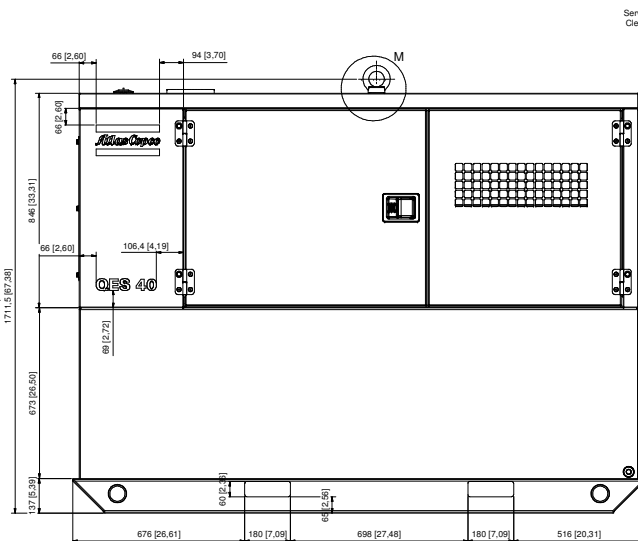
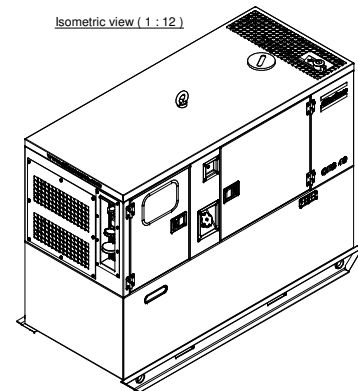


DIMENSION DRWG				QES 30-40	
Model	QES 30-40	Serial	1000000	Rev	001
Material	Steel	Finish	Paint	Weight	1000 kg
Power	30 kW	Current	100 A	Voltage	400 V
Frequency	50 Hz	Speed	1500 rpm	Efficiency	90%
Protection	IP23	Altitude	1000 m	Temperature	40°C
Humidity	95%	Seismic	0.1g	Shock	10g
EMC	CE	RoHS	CE	REACH	CE

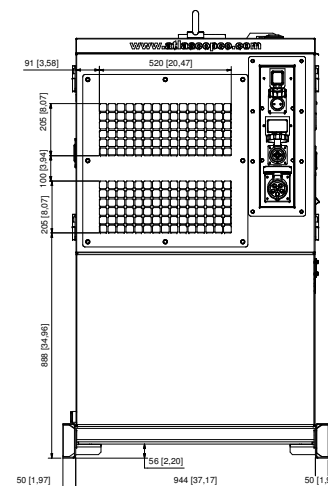
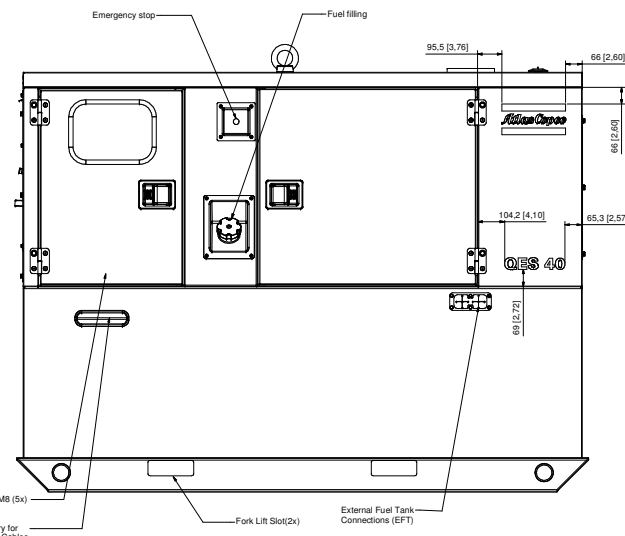
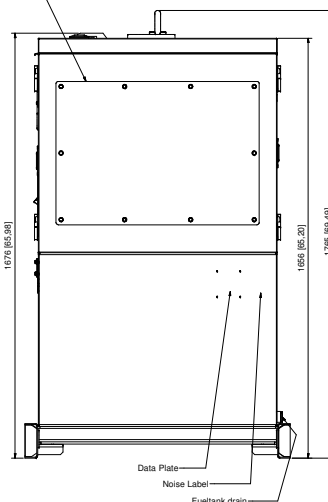
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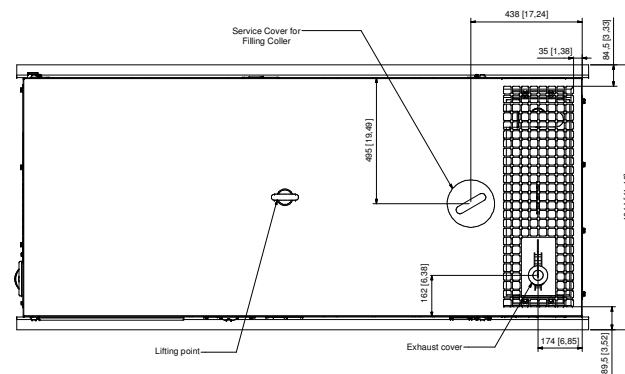
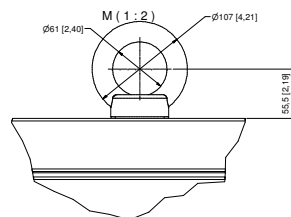
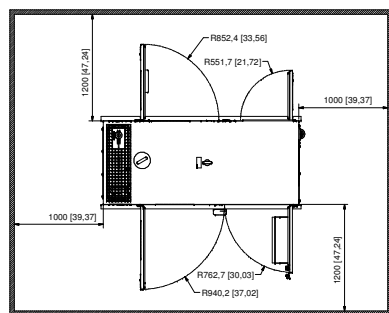
Optional: Skid+48 h



Service Panel for
Cleaning Cooler

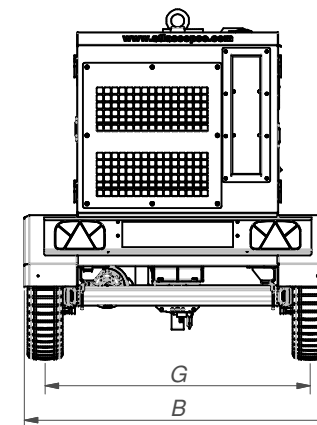
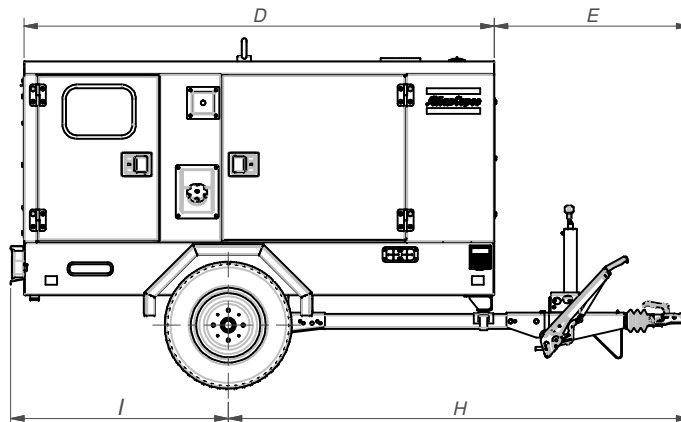
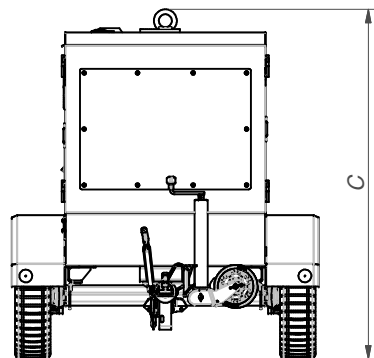


MAINTENANCE SPACE (1 : 20)



Tolerances, if not indicated, according to																	
ATLAS COPCO STANDARD CLASS																	
Name										DIMENSION DRWG			QES 30-40		Inventory Class		
Material															ISO Classification		
Treatment															INV		
										Scale 1:10		Family		AC programs		Drawing code	
Drawn by: G32JMB										Blank or -		Registers		ESP			
DATE										Blank or -		Approved		Signature		Initials	
Status checked										Blank or -		Approved		29/1/2015			
Approved										Blank or -				1636005162			

CONFIDENTIAL

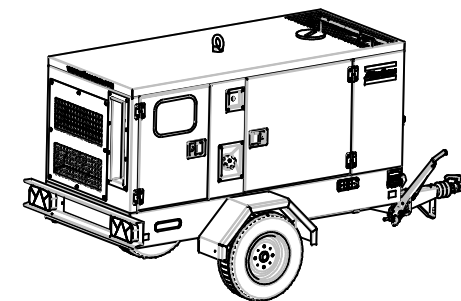
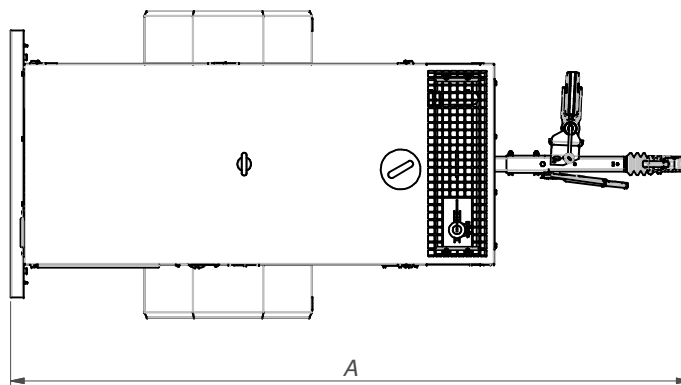


FIXED TOWBAR. QES

A	Total lenght (mm)	See coupling system table
B	Total width (mm)	1435
C	Total height (mm)	1640
D	Base frame lenght (mm)	2200
E	Towbar lenght (mm)	See coupling system table
F	Towbar height (mm)	320
G	Wheel track width (mm)	1240
H	Front cantilever (mm)	See coupling system table
I	Rear cantilever (mm)	1020

*COUPLING SYSTEM

Type	REF. AL-KO	A	E	H
AK 160 HEAD Ø 50	249277	3180	915	2160
AK 300 HEAD Ø 50	246960	2722	915	2160
DIN EYE Ø 40	242252	3204	939	2184
ITA EYE Ø 45	242255	3212	947	2192
FRA EYE Ø 68	1212071	3206	941	2186
NATO EYE Ø 76	242253	3214	949	2194
UK EYE Ø 40	638671	3199	934	2179
FRA RING Ø 40	242254	3192	927	2172



WEIGHT DISTRIBUTION. QES BOX AC

	Total	Weight on axle	Weight on towing eye
Maxim un empty weight (Kg.)	1230	1165	65
Minim un empty weight (Kg.)	1090	1018	72
MTPM (Kg.)	1.350		

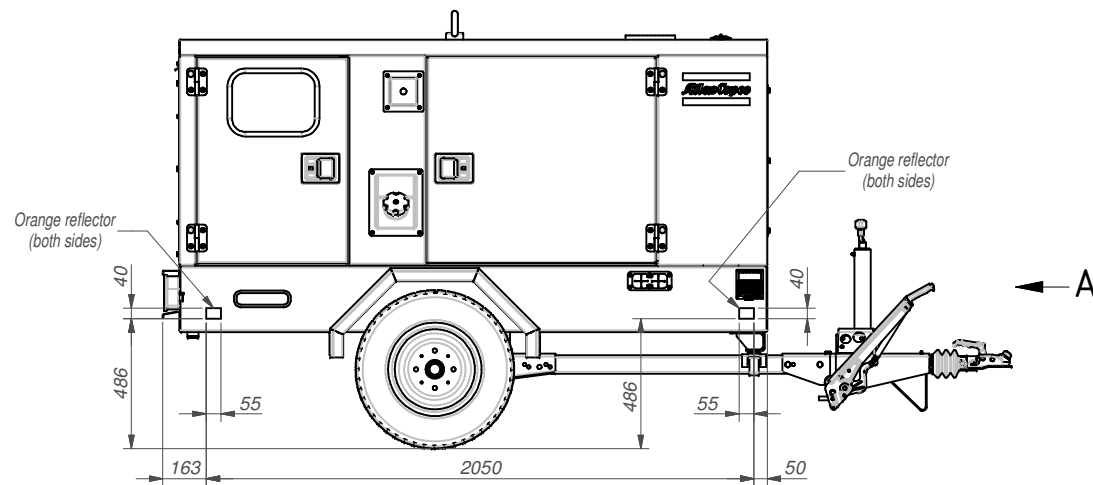
Tolerances, if not indicated, according to:		General tolerances				
		1350K - mK				
Name		DIMENSION DRWG			QES BOX A UNDERCARRIAGE	
Material					Confidentiality Class acc. to 1102 K	
Treatment		Not Applicable			Confidential	
					Thickness:	
					INV	
		Scale	1:25	Family	A3	Compare
		Drawn by	jalobera	Blank nr.		Replaces
STATUS		Version Drwg	Blank wt.	Kg	Fini wt.	Designation
		00			745,874 Kg	
Approved		Des checked.	Prod checked.	Approved.	Date	Sheet
					10/03/2015	1 / 4
		1636006137				

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition

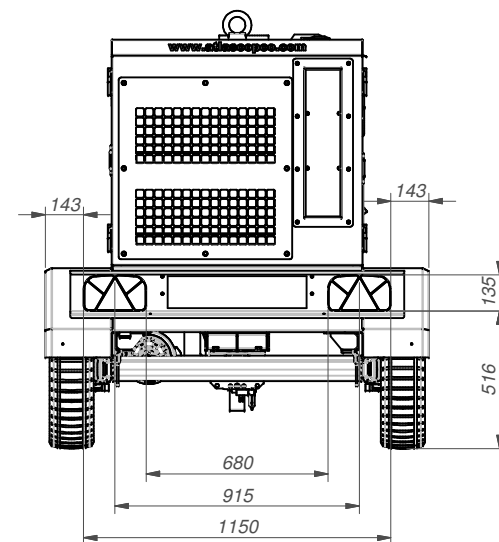
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Sheet 1 / 4

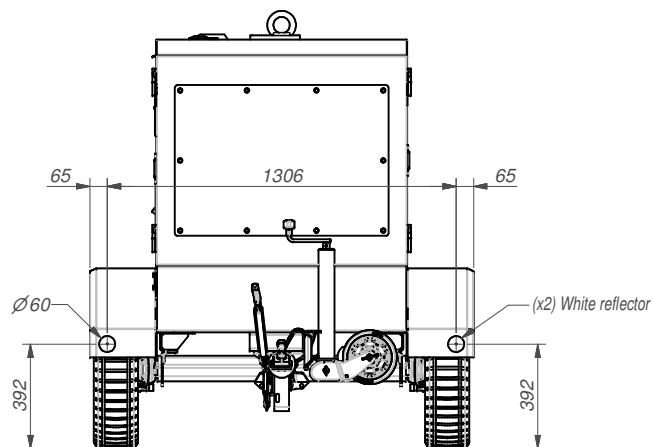
LIGHTING COMPONENTS



A (1:20)



REAR LIGHTS

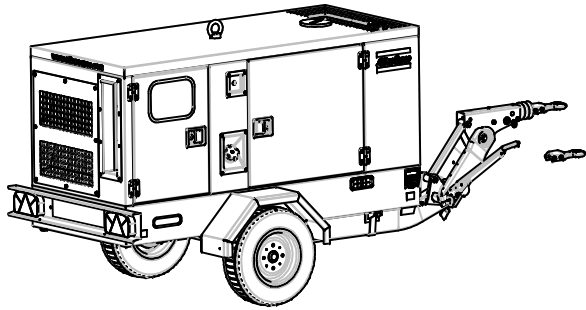


Tolerances, if not indicated, according to:									
Name		DIMENSION DRWG QES BOX A UNDERCARRIAGE				Confidentiality Class acc. to 1102 K			
Material						Confidential			
Treatment		Not Applicable				Thickness:		INV	
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STATUS		Version Drwg		00		Blank wt.		Kg	
Approved		Des checked.		Prod checked.		Approved.		Date	
								10/03/2015	
		Fin. wt.		745,874		Kg		Designation	
								1636006137	
								Sheet 2 / 4	
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								ESF	

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition

CONFIDENTIAL:

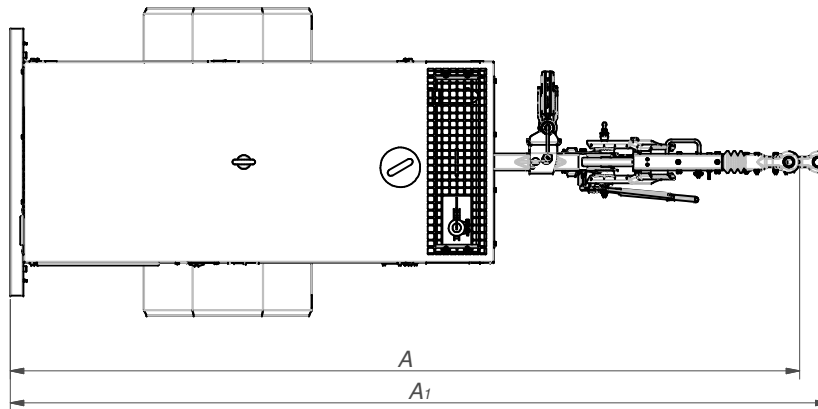
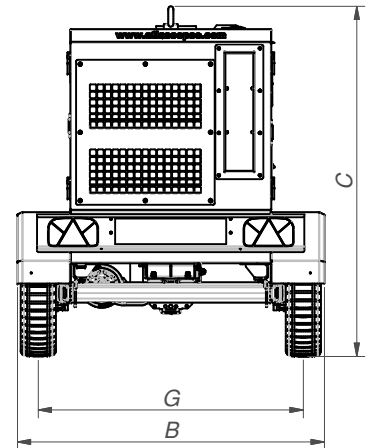
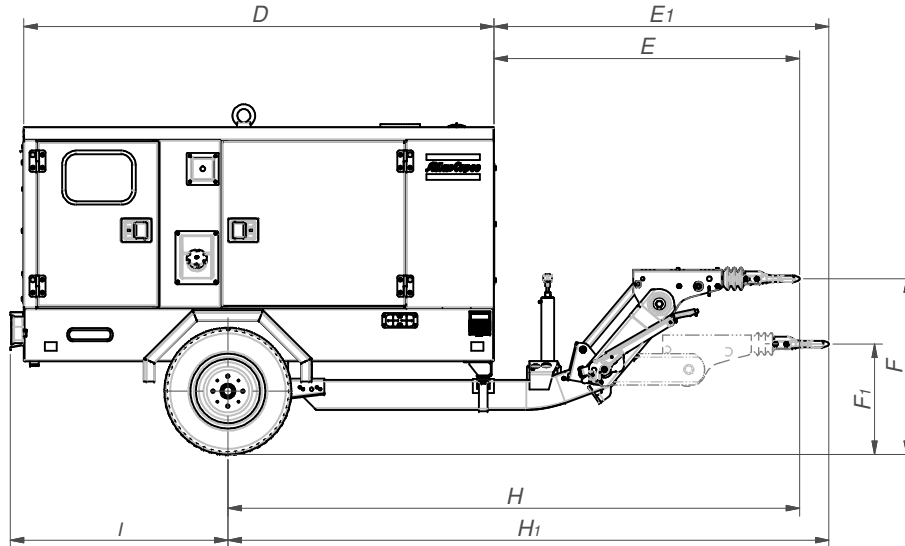
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ARTICULATED TOW BAR. QES. (mm.)		
A	Total lenght	*See coupling system table
A1	Total lenght 1	A+140
B	Total width	1435
C	Total height	1640
D	Base frame lenght	2200
E	Towbar lenght	*See coupling system table
E1	Towbar lenght 1	E+140
F	Towbar height	825
F1	Towbar height 1	445
G	Wheel track width	1240
H	Front cantilever	*See coupling system table
H1	Front cantilever 1	H+140
I	Rear cantilever	1018

*COUPLING SYSTEM (mm.)				
Type	REF. AL-KO	A	E	H
AK160 HEAD Ø50	249277	3639	1376	2621
DIN EYE Ø 40	1 213 350	3693	1430	2675
UK EYE Ø 30	1 224 106	3642	1379	2624
UK EYE Ø 40	1 224 107	3679	1416	2661
UK EYE Ø 50,8	1 224 109	3742	1479	2724
ITA EYE Ø 45	1 224 108	3673	1410	2655
FRA EYE Ø 68	1 224 110	3642	1379	2624
NATO EYE Ø 76	1 224 111	3671	1408	2653
SWEDEN EYE VBG Ø 57,5	1 225 076	3759	1496	2741

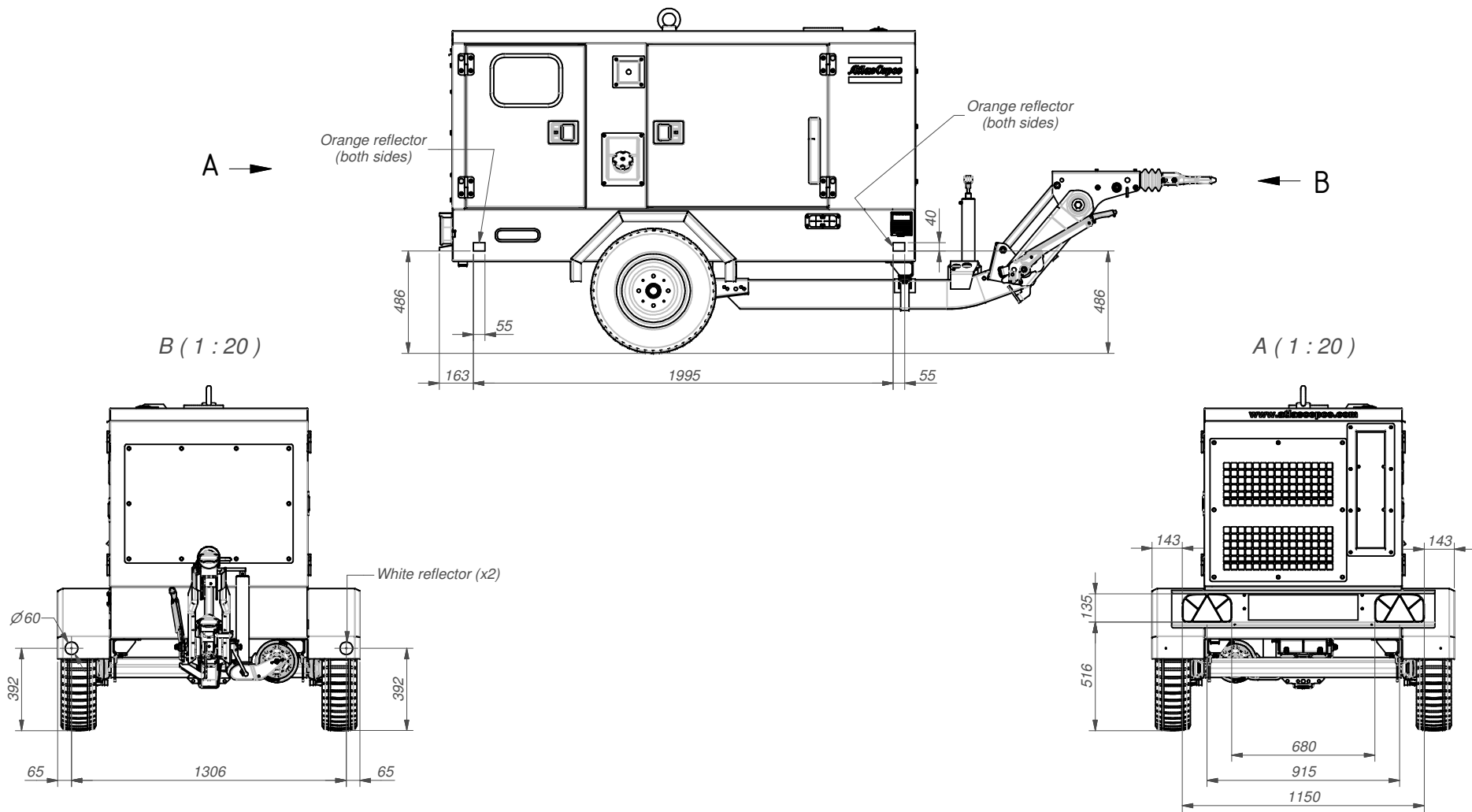
QES WEIGHT DISTRIBUTION. (KG.)			
Maximun weight (Full fuel tank)	Total	Weight on axle	Weight on towing eye
	1270	1191	79
Minimun weight (Empty fuel tank)	Total	Weight on axle	Weight on towing eye
	1130	1054	76
MTPM (Kg.)	1.350		



Tolerances, if not indicated, according to:		General tolerances			
		1350K - mK			
Name		DIMENSION DRWG			QES BOX A UNDERC. HA
Material					Confidentiality Class acc. to 1102 K
Treatment					Confidential
		Thickness:			INV
		Scale	1:25	Family	A3
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					Replaces
STATUS		Version Drwg	Blank wt	Fin. wt.	Designation
		00	Kg	699,558 Kg	Sheet 1 / 4
Approved		Des checked.	Prod checked.	Approved.	Date
					10/03/2015
					1636006147

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition

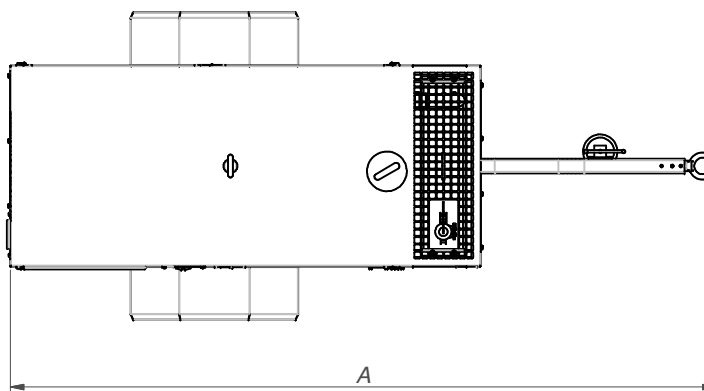
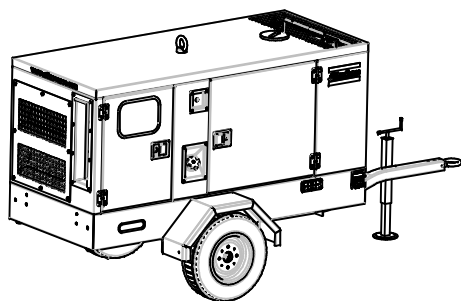
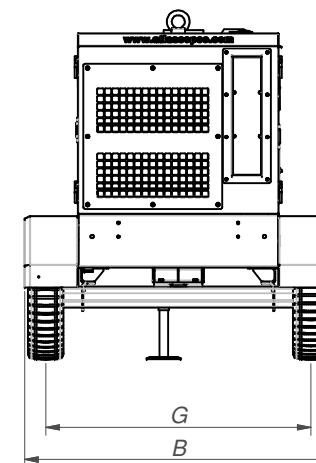
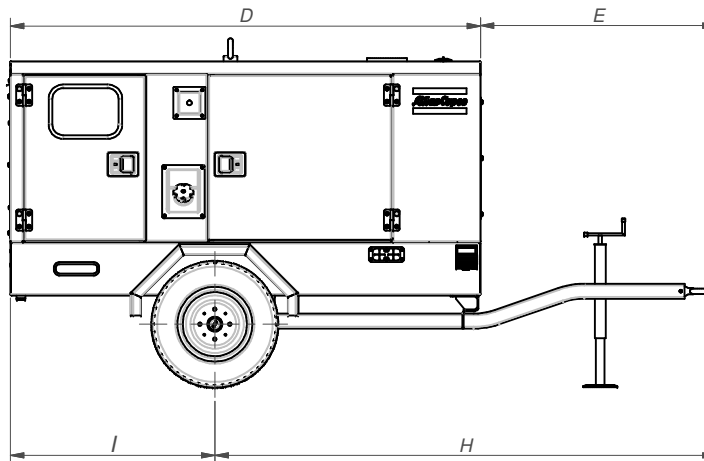
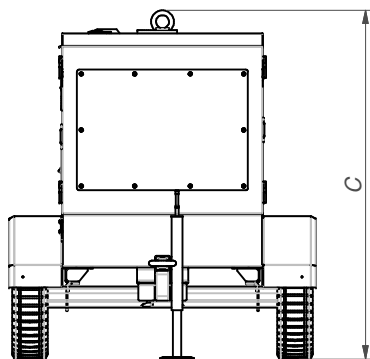
LIGHTING COMPONENTS



Tolerances, if not indicated, according to:																					
Name										DIMENSION DRWG				QES BOX A UNDERC. HA				Confidentiality Class acc. to 1102 K			
Material																		Confidential			
Treatment														Thickness:				INV			
		Scale		1:20		Family				A3		Compare		Drawing owner ESF							
		Drawn by		jalobera		Blank nr.						Replaces									
STATUS		Version Drwg		00		Blank wt		Kg		Fini wt.		699,558 Kg		Designation		Sheet 2 / 4					
Approved		Des checked.		Prod checked.		Approved.		Date		10/03/2015		1636006147									

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition

Drawing owner
ESF



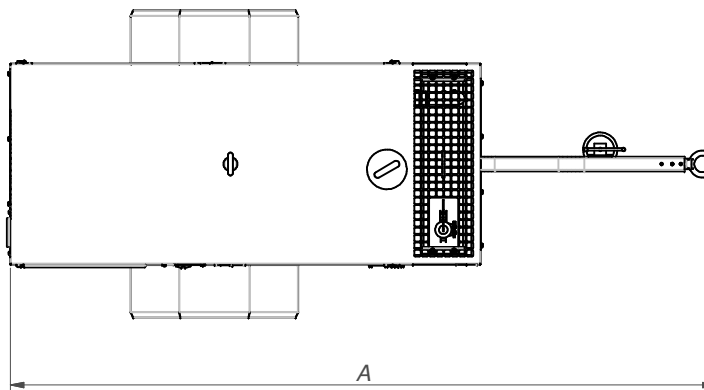
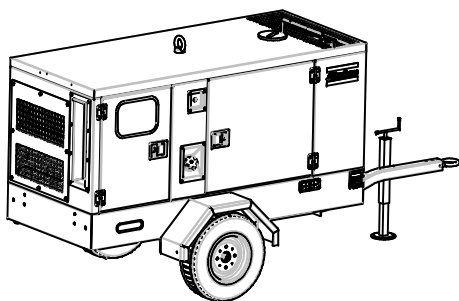
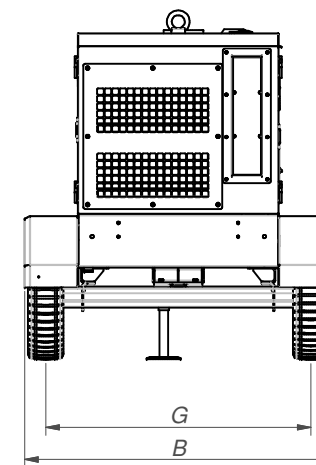
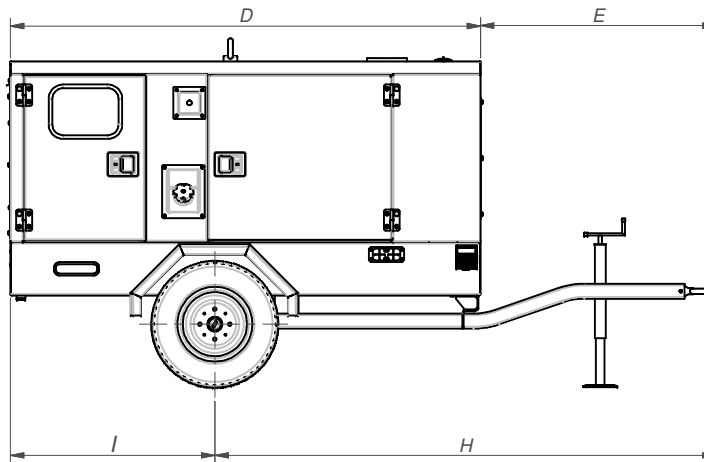
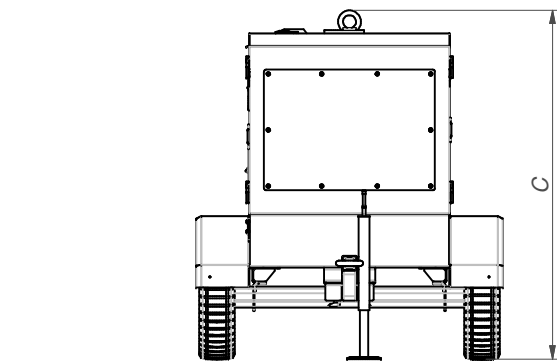
NOT HOMOLOGATED TOWBAR. QES BOX A		
A	Total length (mm)	3302
B	Total width (mm)	1435
C	Total height (mm)	1635
D	Base frame length (mm)	2200
E	Towbar length (mm)	1102
F	Towbar height (mm)	320
G	Wheel track width (mm)	1240
H	Front cantilever (mm)	2345
I	Rear cantilever (mm)	957

Tolerances, if not indicated, according to:				General tolerances				
				1350K - mK				
Name		DIMENSION DRWG				QES BOX A UC OFF ROA		Confidentiality Class acc. to 1102 K
Material								Confidential
Treatment						Thickness:		INV
		Scale		1:25		Family		A3
		Drawn by		jalobera		Blank nr.		Compare
		Version Drwg		00		Blank wt.		Replaces
STATUS				Kg		Fini wt.		619,605 Kg
Approved		Des checked.		Prod checked.		Approved.		Date
								20/04/2015
								1636006689
								Drawing owner
								ESF
								Sheet 1 / 2

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition	

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NOT HOMOLOGATED TOW BAR. QES BOX A		
A	Total length (mm)	3302
B	Total width (mm)	1435
C	Total height (mm)	1635
D	Base frame length (mm)	2200
E	Tow bar length (mm)	1102
F	Tow bar height (mm)	320
G	Wheel track width (mm)	1240
H	Front cantilever (mm)	2345
I	Rear cantilever (mm)	957

Tolerances, if not indicated, according to:					
Name		DIMENSION DRWG		QES BOX A UC OFF ROA	
Material				Confidentiality Class acc. to 1102 K	
Treatment				Confidential	
				Thickness: INV	
Scale		Family		A3 Compare	
Drawn by jalobera		Blank nr.		Replaces	
Version Drwg 00		Blank wt. Kg		Fini wt. 619,605 Kg	
STATUS		Des checked.		Prod checked.	
Approved		Approved.		Date 20/04/2015	
		Designation		1636006689	
		Sheet		2 / 2	

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Ed	Position	Modified from	Date	Intr./Appd.	Parent 3D Model	3D Model Edition



SERVICE		PRP	ESP
POWER	kVA	34	37
POWER	kW	27	30
RATED SPEED	r.p.m.	1.500	
STANDARD VOLTAGE	V	400/230	
AVAILABLE VOLTAGES	V	230/132 · 230 V (t)	
RATED AT POWER FACTOR	Cos Phi	0,8	



RENTAL RANGE

HIMOINSA Company with quality certification ISO 9001

HIMOINSA gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2012/46/EU)
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2018 normative: 1000 mbar, 25°C, 30% relative humidity.

Prime Power (PRP):

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

Emergency Standby Power (ESP):

According to ISO 8528-1:2018, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP

Continuous Power (COP): According to Standard ISO 8528-1:2018, this is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

G2 class load acceptance in accordance with ISO 8528-5:2013

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Manufacture facilities:

SPAIN • FRANCE • INDIA • CHINA • USA • BRAZIL • ARGENTINA

Subsidiaries:

PORTUGAL | POLAND | GERMANY | UK | SINGAPORE | UAE | PANAMA |
DOMINICAN REPUBLIC | ARGENTINA | ANGOLA | SOUTH AFRICA



SOUNDPROOFED RENTAL

	B10R
	WATER-COOLED
	THREE PHASE
	50 HZ
	STAGE 3A
	DIESEL

Himoinsa has the right to modify any feature without prior notice.

Weights and dimensions based on standard products. Illustrations may include optional equipment.

Technical data described in this catalogue correspond to the available information at the moment of printing.

The illustrations and images are indicative and may not coincide in their entirety with the product.

Industrial design under patent.



Engine Specifications | 1.500 r.p.m.

Rated Output (PRP)	kW	30,7
Rated Output (ESP)	kW	34,1
Manufacturer	YANMAR	
Model	4TNV98IGEHR	
Engine Type	4-stroke diesel	
Injection Type	Direct	
Aspiration Type	Natural	
Number of cylinders and arrangement	4-L	
Bore and Stroke	mm	98 x 110
Displacement	L	3,319
Cooling System	Coolant	
Lube Oil Specifications	SAE 3 class 10W30 / API grade CD,CF	
Compression Ratio	18,5	

Fuel Consumption ESP	l/h	8,53
Fuel Consumption 100% PRP	l/h	7,60
Fuel Consumption 75 % PRP	l/h	5,70
Fuel Consumption 50 % PRP	l/h	4,05
Lube oil consumption with full load	g/kWh	0,27
Total oil capacity	L	10,5
Total coolant capacity	L	9
Governor	Type	Mechanical
Air Filter	Type	Dry
Inner diameter exhaust pipe	mm	45

- 
- Diesel engine
 - 4-stroke cycle
 - Water-cooled
 - 12V electrical system
 - Water separator filter (visible level)
 - Dry air filter
 - Radiator with pusher fan
 - Mechanical governor
 - Hot parts protection
 - Moving parts protection



Generator Specifications | STAMFORD

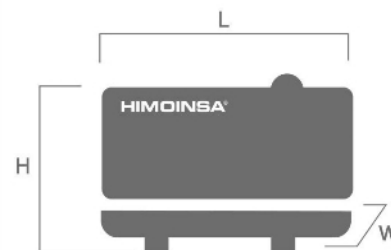
Manufacturer	STAMFORD	
Model	S1L2.J1	
Poles	No.	4
Connection type (standard)	Star-series	
Mounting type	S-3 11*1/2	
Insulation	Class	H class

Enclosure (according IEC-34-5)	IP23
Exciter system	Self-excited, brushless
Voltage regulator	A.V.R. (Electronic)
Bracket type	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

- 
- Self-excited and self-regulated
 - IP23 protection
 - H class insulation

WEIGHT AND DIMENSIONS

		Standard Version	Optional version	High Capacity version	High Capacity version
Length (L)	mm	2.150	2.150	2.150	2.150
Height (H)	mm	1.329	1.329	1.557	1.557
Width (W)	mm	1.025	1.025	1.025	1.025
Maximum shipping volume	m ³	2,93	2,93	3,43	3,43
Weight with liquids in radiator and sump	Kg	917	957	1007	1062
Fuel tank capacity	L	100	100	190	330
Autonomy	Hours	18	18	33	58
		Plastic tank	Steel tank	Steel tank	Steel tank



SOUND PRESSURE

Sound pressure level	dB(A)@7m	66 ± 2,4
----------------------	----------	----------

APPLICATION DATA

EXHAUST SYSTEM

Maximum exhaust temperature	°C	550
Exhaust Gas Flow	m ³ /min	8,52
Maximum allowed back pressure	mm H2o	1300
Exhaust Flange Size (external diameter)	mm	65

NECESSARY AMOUNT OF AIR

Intake air flow	m ³ /h	134,42
Cooling Air Flow	m ³ /s	0,979
Alternator fan air flow	m ³ /s	0,177

STARTING SYSTEM

Starting power	kW	2,3
Starting power	CV	3,13
Recommended battery	Ah	92
Auxiliary Voltage	Vdc	12

FUEL SYSTEM

Fuel Oil Specifications		Diesel
Fuel Tank	L	100
Other fuel tank capacities	L	100, 190, 330



Soundproofed version

- Steel chassis
- Manhole to fill the radiator
- Pre-installation or niche to house the quick connection hydraulic fittings for fuel transfer
- Anti-leakage chassis, predisposed to retain liquids (retention tray)
- Manhole for fuel tank cleaning and drainage
- Manhole for chassis cleaning
- Oversized chassis to protect the bodywork
- Slide carriage and brackets for transportation with forklift
- Tilting cap in the exhaust
- Anti-vibration shock absorbers

- Chassis with integrated fuel tank
- Fuel level gauge
- Bodywork made from high quality steel plate
- High mechanical strength
- Low noise emissions level
- Soundproofing provided by high-density volcanic rock wool
- Epoxy polyester powder coating
- Full access for maintenance (water, oil and filters, no need to remove the canopy)
- Reinforced lifting hooks for crane hoisting
- Steel residential silencer -35db(A) attenuation.

- Oil sump extraction kit
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- External filling of the fuel tank with safety key
- Emergency stop button (double emergency stop protection: Interior on the panel + Exterior on the bodywork)
- Mechanized for power cable output
- Door with window to visualize control panel, alarms and measurements
- Pressure locks
- IP Protection according to ISO 8528-13:2016
- 3 way valve for external fuel supply (available in 1/2" and 3/8" fittings) (Optional).
- Fuel transfer pump (Optional).



FEATURES OF THE CONTROL UNITS

	CEM 7
Generator Readings	Voltage between phases •
	Voltage between neutral and phase •
	Current intensities •
	Frequency •
	Apparent power (Kva) •
	Active power (Kw) •
	Reactive power (kVAR) •
	Power factor •
Mains Readings	Voltage between phases
	Voltage between phases and neutral
	Current intensities
	Frequency
	Apparent power
	Active power
	Reactive power
Engine Readings	Power factor
	Coolant temperature •
	Oil pressure •
	Fuel level (%) •
	Battery voltage •
	R.P.M. •
Engine Protections	Battery charge alternator voltage •
	High water temperature •
	High water temperature by sensor •
	Low water temperature by sensor •
	Low oil pressure •
	Low oil pressure by sensor •
	Low water level •
	Unexpected shutdown •
	Fuel storage •
	Fuel storage by sensor •
	Stop failure •
	Battery voltage failure •
	Battery charge alternator failure •
	Overspeed •
	Underspeed •
	Start failure •
	Emergency stop •

• Standard

⊙ Optional

	CEM 7
Alternator Protections	High frequency
	Low frequency
	High voltage
	Low voltage
	Short-circuit
	Asymmetry between phases
	Incorrect phase sequence
	Inverse power
	Overload
	Genset signal drop
Counters	Total hour counter
	Partial hour counter
	Kilowatt meter
	Starts valid counters
	Starts failure counters
Communications	Maintenance
	RS232
	RS485
	Modbus IP
	Modbus
	CCLAN
	Software for PC
	Analogue modem
	GSM/GPRS modem
	Remote screen
	Tele signal
	J1939
Features	Alarm history
	External start
	Start inhibition
	Mains failure start
	Start under normative EJP
	Pre-heating engine control
	Genset contactor activation
	Mains & Genset contactor activation
	Fuel transfer control
	Engine temperature control
	Manual override
	Programmable alarms
	Genset start function in test mode
	Programmable outputs
	Multilingual
Special Functions	GPS Positioning
	Synchronisation
	Mains synchronization
	Second Zero elimination
	RAM7
	Remote screen
	Programming timer

• Standard

Ⓞ Optional



CONTROL PANELS



M5

Digital manual Auto-Start control panel and thermal magnetic protection (depending on current and voltage) and differential with CEM7.

Digital control unit CEM7



Electrical system

- M5 control panel with electronic CEM7 control unit and switched emergency stop
- Power panel with built-in circuit breaker plates
- Safety relay in output terminal board (thermal magnetic trip and alarm in control unit)
- Adjustable earth leakage protection (time & sensitivity) standard in M5 and AS5, with thermal magnetic protection
- 4-pole thermal magnetic circuit breaker
- Battery charger alternator with ground connection
- Starter battery/ies installed (cables and bracket included)
- Ground connection electrical installation with connection ready for ground spike (not supplied)
- Battery Switch (Opcional).

Appendix 3

Compound

Scale	Drawn By	Checked By	Authorised By
1:50	SJL		
	Date 05.02.19	Date	Date
Job No.	Drawing No.	Revision	
809000	SD/COMP/2019/01	-	
Original Sheet Size A1		Do Not Scale From This Drawing	

Appendix 4

Build route

Drawing Key:

- Phase 1 Roads & Sewers

Phase 2 Roads & Sewers

Phase 3 Roads & Sewers

Sales Area & Parking

Materials Store

Sub-Contractor Car Park

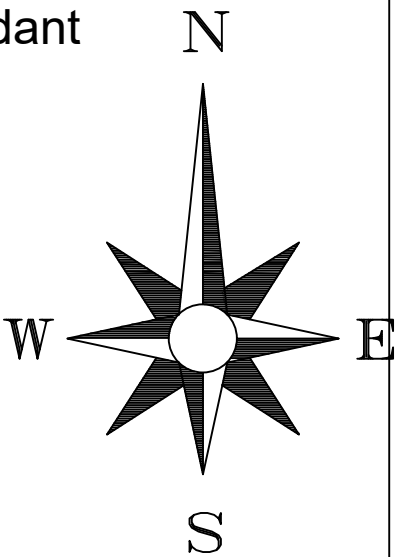
Compound, Office & Welfare
- Route of Build

2 Number Cement Silos

Temporary Haul Road and Construction Access - subject to all necessary planning consents

Green buffer to be delivered in line with route of build / as associated dwellings are completed

Indicates removal of existing hedgerow to allow for new temporary construction access. New hedgerow to be planted once access is made redundant



POS TO BE DELIVERED AT SAME TIME & IN LINE WITH SHOW HOME ARENA OPENING

Section of existing hedgerow to be lowered to a maximum height of 1m to a length of up to 10m either side of hedge removal. Height of hedge to be maintained at that height until temporary access is no longer required.

Temporary site construction access served off Finch Lane

Section of existing hedgerow to be removed and replaced once temporary access has been made redundant

H	Note added referring to lowering of existing hedge.	JL	20/12/22
G	Temporary access relocated to connect with Finch Lane.	JL	10/11/22
F	Route of build amended following comments from production.		
F	Confirm delivery of landscaped POS space.	AJM	21/06/21
E	Road Phasing revised to install leg of road down to the existing access point off Higher Road.	SR	07/04/21
D	Route of Build revised following agreement in the DM3 meeting (11/04/21).	SR	01/04/21
C	Route of Build Rationalised. Material Store, Compound, Car Park and Site Access Location Amended.	AJM	23/03/21
B	Route of Build Rationalised. Material Store, Compound, Car Park and Site Access Location Amended. Spoil location added.	SJL	23/09/19
A	Route of Build Rationalised. Material Store, Compound, Car Park and Site Access Location Amended.	SJL	06/09/18
Rev.	Description	Drawn	Date

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Project Title
Halewood

Drawing Title
Route of Build

Scale	Drawn By	Checked By	Authorised By
1/500	SJL		
Date	25.07.18	Date	
Job No.	Drawing No.	Revision	
	Halewood/ROB/01	H	

Original Sheet Size A1 Do Not Scale From This Drawing