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Section 1: Introduction

1.1 Purpose

This document contains guidance on the processes and procedures that should be in place on all relevant development sites, including the recommended practices, documentation, considerations and planning conditions. It can be used by both regulators and developers to better understand what is expected of sites.

1.2 Background

For a number of years, many diesel road vehicles have had to meet emissions standards to avoid being charged for travelling within the London Low Emission Zone (LEZ). It is also important to take action to reduce emissions from non-road mobile machinery (NRMM) in order to protect and improve the health of Londoners. The London Atmospheric Emissions Inventory estimates that in 2013, NRMM used on construction sites was responsible for 7% of NOx emissions, 8% of PM10 emissions, and 14.5% of PM2.5 emissions in London.

PMs and NOx also contribute to poor respiratory health. Ensuring that NRMM used on site meets cleaner emissions standards also helps to protect the health of site workers who use and work in close proximity to these machines.

To address the contribution made by non-road mobile machinery on London’s air quality, the GLA have established emissions standards for London.

Section 2: The Requirements

2.1 Definition of NRMM

Non-road mobile machinery (NRMM) is defined as any mobile machine or vehicle that is not solely intended for carrying passengers or goods on the road.

The Emissions requirements are only applicable to NRMM that is powered by diesel, including diesel hybrids.

Examples of NRMM include, but are not limited to:

- Access platforms
- Dumpers
- Piling rigs
- Excavators
- Bulldozers
- Forklifts
- Compressors
- Generators
- Mobile cranes
- Concrete pumps
- Mobile crushers
- Telehandlers
- Rollers
- Other construction machinery
2.2 Where do the NRMM emissions standards apply?

Currently the NRMM emissions standards apply to all Major Development Sites in Greater London, and all sites within the Central Activity Zone or Canary wharf (CAZ/CW).

From 1st September 2020 the NRMM emissions standards will apply to all sites in Greater London.

2.3 Definition of a major development

Major development sites are defined in the London Plan as a residential development of 10 or more dwellings, or having an area of 0.5 hectares or more where number of dwellings is not known; or any development carried out on a site having an area of 1 hectare or more, or floor space of 1000 square metres or more.

2.4 What are the requirements?

Currently NRMM on major construction sites within Greater London are required to meet Stage IIIA of EU Directive 97/68/EC as a minimum; and NRMM on all sites within either the Central Activity Zone or Canary Wharf (CAZ/CW) are required to meet Stage IIIB of EU Directive 97/68/EC as a minimum.

From 1st September 2020 NRMM on all sites within Greater London will be required to meet Stage IIIB of EU Directive 97/68/EC as a minimum; and NRMM on all sites within either the Central Activity Zone or Canary Wharf (CAZ/CW) will be required to meet Stage IV of EU Directive 97/68/EC as a minimum.

Currently the requirements only apply to NRMM of net power between 37kW and 560kW. The net power range will be annually reviewed by the GLA.

Although the requirements do not apply to all sites, and only to NRMM of net power between 37kW and 560kW, it is good practice to apply the same standard to all sites and all categories of NRMM.
2.5 Model Planning Condition

The NRMM regulations affect all development sites within the Central Activity Zone (CAZ) or Canary Wharf and all major development sites within Greater London. Planning conditions should be placed on those sites in order to help mitigate the impact of developments on air quality and safeguard the health of site workers.

Model Condition:

‘NRMM used on any site within the CAZ or Canary Wharf is required to meet Stage IIIB of EU directive 97/68/EC as a minimum, and NRMM used on the site of any major development within Greater London is required to meet Stage IIIA of EU directive 97/68/EC as a minimum.’

Section 3: Recommended management procedures

Here is a recommended site procedure that works in most situations, however sites are free to adapt this procedure for their site. The procedures should still ensure that the site is compliant, and that centralised records of the relevant emissions information are being kept and can be made available on site.

Sites must additionally ensure that the online register is kept up to date.

3.1 Roles and Responsibilities

On each site the Primary Contractor should nominate a person to manage the NRMM requirements. It is their responsibility to ensure that the site is compliant, which includes:

a) Ensuring that all relevant site workers are aware of the requirements, carrying out their roles and adequately equipped to do so.

b) Keeping all relevant machinery emissions information and documentation centralised on site

c) Ensuring that the NRMM online register is kept up to date (http://nrmm.london/)

Each sub-contractor should nominate 1 person to be responsible for ensuring that the NRMM they are bringing to site is compliant and provide the Primary Contractor with the relevant details for each machine.

3.2 Sub-contractors checks

The maximum amount of time an item of non-compliant NRMM can stay on site without an exemption is 5 days, therefore NRMM should be checked by the sub-contractor, and the primary contractor notified within the first 5 days of its arrival.

An example of the type of form that can be used to record NRMM details when it arrives is shown in Appendix 1. For guidance on how to find the relevant emissions information on the engine, and how to confirm engine emissions stage, see Sections 4.3 – 4.6.
3.3 Site NRMM inventory spreadsheet

After being checked by the sub-contractor, the NRMM emissions information should be passed to the Primary Contractor, who will keep the relevant information for all NRMM on site centralised on their own spreadsheets. An example spreadsheet that could be used is shown in Appendix 3. It is optional for sub-contractors to keep similar spreadsheets of their own.

3.4 Primary contractor checks

The information provided by the sub-contractors should be checked by the Primary Contractor at least once per month, this could be included in the site monthly/weekly environmental audits. These checks should be documented on the site NRMM inventory spreadsheet.

For guidance on how to find the relevant emissions information on the engine, and how to confirm an engines emissions stage, see Section 4: Inspections and Assessing compliance.

3.5 Managing non-compliant NRMM

If during any of these checks an item of NRMM is found to be non-compliant, the contractor should remove it from site within 5 days of its arrival. If this is not possible then the primary contractor should apply for a 30 day exemption, explaining why the item of NRMM cannot be removed within the 5 day deadline. The application should include your intentions for the machine, for example when you plan to remove it from site or install a retrofit (see Section 4.6 for more information regarding retrofits).

While the exemption request is awaiting approval the exemption is active, but be aware that these applications may be refused and sites should be prepared to remove the machine as soon as possible in those cases.

It is also recommended that sites keep a record of actions taken to address any instances when non-compliant NRMM arrives on site. An example incident report sheet is shown in Appendix 4.

Section 4: Inspections & Assessing compliance

4.1 Health and Safety

Site health and safety procedure must be followed at all times during NRMM inspections. If for health and safety reasons a particular item of NRMM on site cannot be inspected, the person carrying out the inspection should ask to see the appropriate documentation for that machine. If there is reason to believe that the item of NRMM is non-compliant, or the appropriate documentation is not available, an inspection should be carried out as soon as possible at a time when it is safe to do so.

4.2 Local Authority Inspection

It is recommended that these inspections are arranged in advance. The inspecting officer should view all areas of site where NRMM could be found, checking whether the NRMM on site is compliant and that the relevant emissions information matches up with site records.

An example inspection form is available in Appendix 2. This is primarily for local authority use, but sites can also use this if they wish to do so. Most sites prefer to record their own checks on their NRMM inventory spreadsheets (Appendix 3).
4.3 Reading engine Type Approval plates

Approved engines must have an EC Type Approval Number. The type approval number should be permanently fixed and durable for the lifetime of the engine. The exact location of the Type Approval Plate varies from one machine to another.

The number takes the following format:

\[ \text{e11'97/68AB'2004/26'XXX'YY} \]

(Note that this is an example and not a real Type Approval Number)

- **e11’**: the member state authority that tested the engine
- **97/68**: the original EC base legislation the approval is for
- **A**: the encoding letter of the EU Emissions Stage
- **B’**: variable speed (A) or constant speed (B) engine
- **2004/26’**: the latest level of the legislation that the approval relates to
- **XXX’**: the identification number of the manufacturer or importer
- **YY**: indicates if the approval has any revisions

Using the tables below, an engine’s EU Emissions Stage and Power Band (kW) can be identified from the encoding letter in the Type Approval Number. Note that Encoding letters D and K indicate Power Band 19kW – 37kW which is currently outside of the kW threshold of the requirements.

### Encoding Letter | EU Emissions Stage
--- | ---
A-C | EU Stage I
D-G | EU Stage II
H-K | EU Stage IIIA
L-P | EU Stage IIIB
Q-R | EU Stage IV

### Power Band (kW) | 19≤ kW <37 | 37≤ kW <75 | 56≤ kW <90 | 90≤ kW <130 | 130≤ kW <560
--- | --- | --- | --- | --- | ---
I | * | C | C | B | A
II | D | G | G | F | E
IIIA | K | J | J | I | H
IIIB | * | P | N | M | L
IV | * | * | R | R | Q

* no encoding letter assigned

Example Type Approval plates with explanations of what information can be gathered from them are available in Appendix 5.
4.4 Difficulty locating Type Approval plates

If you are having trouble finding a Type Approval plate you should get in touch with the machine supplier who may be able to tell you where it is located on the machine.

If no Type Approval Number is evident on the machine, or it cannot be read for any reason, then appropriate documentation should be kept as evidence of the engines compliance. This can be either:

- A Type Approval Certificate issued by an approval authority; or
- A Declaration of Conformity from the manufacturer; showing the Type Approval Number for that engine.

Example Type Approval Certificates and acceptable Declarations of Conformity from the manufacturer are shown in Appendix 6.

If no Type Approval Number is evident on the machine, or it cannot be read for any reason, and suitable documentation is not available, the machine is non-compliant in both Greater London and the Central Activity Zone / Canary Wharf.

4.5 Exemptions

There are cases where items of NRMM may be exempt from certain requirements. Note that all NRMM between 37kW and 560kW should be registered online regardless of any exemptions that may apply.

Block Exemptions currently apply to truck-mounted cranes and constant speed engines. This excuses them from Stage IIIB emission requirements only. This exemption is automatic and does not need to be applied for online. For more information on how to identify constant speed engines see Section 4.3.

Viability Exemptions: If no viable retrofit is available and the supply of compliant equipment is limited, you can apply for a viability exemption online. The machine will still have to meet the next best possible emissions stage. This exemption lasts for 1 year, after which time you will need to re-apply for the exemption.

Short-term Exemptions: Short term exemptions are available in cases of emergencies, allowing non-compliant NRMM to be on site for 30 days.

4.6 Retrofits

There are a variety of retrofit abatement technologies available to reduce emissions to the required level. The most common method of retrofitting involves the installation of a diesel particulate filter (DPF) or catalytic convertor to the exhaust system of the NRMM. All diesel engines are potentially suitable for retrofit to mitigate particulate emissions but space within the engine compartment and cost may both be limiting factors.

Only retrofit technology that has been registered and endorsed by the Energy Saving Trust NRMM certification scheme should be fitted to machinery to ensure the retrofit is correctly specified and fitted in order to prevent engine damage or any risk to the operator. A list of suppliers and endorsed products can be found at:


Retrofit suppliers should issue a certificate for each individual retrofit with appropriate identifying information. It is strongly recommended that sites keep copies of all the certificates for retrofits on their site as a record of compliance and to aid inspections. It is recommended that you take these certificates with you when you carry out inspections on site to help identify which certificate is for which retrofit.

Examples of acceptable retrofit documentation are shown in Appendix 7.
4.7 Compliance Flowchart

Is the engine within the kW Threshold?  
(Currently 37kW – 560kW)

- **YES**  
  - NRMM Compliant, no action required.

- **NO**
  - Does the engine meet the required emissions stage?  
    - See section 4.3 for determining engine stage

    - **YES**  
      - NRMM Compliant, register online and keep any relevant paperwork.  
        - See section 4.4 for relevant paperwork

    - **NO**
      - Is the machine retrofitted with approved emission abatement technology?  
        - See section 4.6 for detail

      - **YES**  
        - NRMM Compliant, register online and keep a copy of the retrofit certificate on site.

      - **NO**
        - Is there a suitable exemption that can be applied for?  
          - See section 4.5 for detail

          - **YES**  
            - Register online and apply for that exemption.

          - **NO**
            - Remove the NRMM from site as soon as possible.

- **Exemption Granted**  
  - NRMM Compliant, re-apply for exemption when exemption period expires if applicable.
## Appendix 1: Example Arrival Form

**NRMM Arrival Form**
(Complete and pass to primary contractor within 5 days of NRMM arriving on site)

<table>
<thead>
<tr>
<th>Contractor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine type</td>
</tr>
<tr>
<td>Supplier</td>
</tr>
<tr>
<td>Date of Arrival</td>
</tr>
<tr>
<td>Plant ID</td>
</tr>
<tr>
<td>Engine Power (kW)</td>
</tr>
<tr>
<td>Engine Manufacturer</td>
</tr>
<tr>
<td>EU Type Approval Number</td>
</tr>
<tr>
<td>EU Emissions Stage</td>
</tr>
<tr>
<td>Retrofit Details*</td>
</tr>
</tbody>
</table>

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Checked</td>
</tr>
<tr>
<td>Checked by</td>
</tr>
<tr>
<td>Signed</td>
</tr>
</tbody>
</table>

*If the machine has been retrofitted with emission abatement technology, the certificates for those retrofits should be provided to the Primary Contractor with this form.
Appendix 2: Example Inspection Form (Local Authority)

Front page

<table>
<thead>
<tr>
<th>Inspector:</th>
<th>Time:</th>
<th>Date:</th>
<th>Site address:</th>
<th>Contact Office address:</th>
<th>Registered all NRMM:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Machine type</th>
<th>Serial number / Plant ID</th>
<th>kW</th>
<th>Type Approval Number</th>
<th>Retrofit</th>
</tr>
</thead>
</table>

**Management system**

What systems are in place to ensure the equipment is compliant and the register kept up to date?

How are retrofits maintained? (filter changes, retrofit expiry etc.)

Is an inventory of all NRMM available on site?

Have sub-contractors plant been included?

**Recommendations**

<table>
<thead>
<tr>
<th>Encoding Letter</th>
<th>EU Emissions Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-C</td>
<td>EU Stage I</td>
</tr>
<tr>
<td>D-G</td>
<td>EU Stage II</td>
</tr>
<tr>
<td>H-K</td>
<td>EU Stage IIIA</td>
</tr>
<tr>
<td>L-P</td>
<td>EU Stage IIIB</td>
</tr>
<tr>
<td>Q-R</td>
<td>EU Stage IV</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Machine type</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix 3: Example Site NRMM Inventory

<table>
<thead>
<tr>
<th>Site address NRMM Inventory</th>
<th>Engine manufacturer</th>
<th>kW</th>
<th>Plant ID</th>
<th>Machine Type</th>
<th>Date of arrival</th>
<th>Date of departure</th>
<th>Refit info</th>
<th>EU Stage</th>
<th>Type Approval Number</th>
<th>Exemption received</th>
<th>Exemption applied for</th>
<th>Date checked</th>
</tr>
</thead>
</table>

(Your logo here)
## Appendix 4: Example Incident Report Sheet

<table>
<thead>
<tr>
<th>Site address NRMM Inventory</th>
<th>Action taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Action required</td>
</tr>
<tr>
<td>Machine type</td>
<td>Issue</td>
</tr>
<tr>
<td>Checked by</td>
<td>Plant ID</td>
</tr>
<tr>
<td>Date checked</td>
<td></td>
</tr>
</tbody>
</table>
# Appendix 5: Example Type Approval Plates

## Deutz

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Deutz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output (kW)</td>
<td>55.4</td>
</tr>
<tr>
<td>Type Approval Number</td>
<td>e1'97/68PA'2012/46'0699'04</td>
</tr>
<tr>
<td>Comments</td>
<td>Stage IIIB variable speed engine</td>
</tr>
</tbody>
</table>

## JCB

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>JCB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output (kW)</td>
<td>55</td>
</tr>
<tr>
<td>Type Approval Number</td>
<td>e11'97/68PA'2010/26'1771'03</td>
</tr>
<tr>
<td>Comments</td>
<td>Stage IIIB variable speed engine</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Kubota</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Power Output (kW)</td>
<td>44</td>
</tr>
<tr>
<td>Type Approval Number</td>
<td>e1'97/68GA'2001/63'0141'00</td>
</tr>
<tr>
<td>Comments</td>
<td>Stage II variable speed engine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>John Deere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output (kW)</td>
<td>Not shown, check VIN plate</td>
</tr>
<tr>
<td>Type Approval Number</td>
<td>e11'97/68HB'2010/26'1235'00</td>
</tr>
<tr>
<td>Comments</td>
<td>Stage IIIA constant speed engine</td>
</tr>
</tbody>
</table>
Appendix 6: Suitable Documentation for Type Approval Number

Type Approval Certificate issued by the VCA

Type Approval Number specified

Identifying information for the engine

Location of Type Approval plate on engine

THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Type Approval Number: 211878867A1*2086/153*1257*19

Reason(s) for extension (where appropriate): To cover:
1) Corrected NRTC results
2) Updated report for same and was multiple filters

SECTION I

0. GENERAL

0.1 Make (name of undertaking): Cummins Inc.

0.2 Manufacturer's designation of the parent/and (if applicable) of the family engine(s) type(s):

0.3 Manufacturer's type code as marked on the engine(s):

Location: valve cover

Method of affixing: metal or mylar plate – adhesive backed

0.4 Specification of machinery to be propelled by the engine(s): non-road

0.5 Name and address of manufacturer:
Cummins Engine Company
500 Jackson St.
Columbus, Indiana 47202-3005
USA

Name and address of manufacturer's authorised representative (if any): Not applicable

0.6 Location, coding and method of affixing of the engine identification number: valve cover – metal or mylar plate – adhesive backed

VCA

an executive agency of the Department for Transport

20-Sep-10
## Caterpillar Declaration of Conformity

### Engine Emission Data

For Emissions feedback and questions contact: engine_certification@cat.com

Need Emission Replacement Label? Click Here!

### Emissions Definitions

This emissions data is Caterpillar’s best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

### Engine Emissions Data

<table>
<thead>
<tr>
<th>Engine Serial Number</th>
<th>2061479</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>C3.8</td>
</tr>
<tr>
<td>Engine Arrangement</td>
<td>345-3815</td>
</tr>
<tr>
<td>Labeled Model Year</td>
<td>2013</td>
</tr>
<tr>
<td>Build Month Year</td>
<td>02/2013</td>
</tr>
<tr>
<td>Emissions Family Code (EPA)</td>
<td>DKXBL03.8AK0</td>
</tr>
<tr>
<td>Emissions Family Code (EU)</td>
<td>CKXBL03.8AK0</td>
</tr>
<tr>
<td>EU Approval Number</td>
<td>4197886A/2010/2650533-02</td>
</tr>
<tr>
<td>R120</td>
<td>003110</td>
</tr>
<tr>
<td>Certification: EPA Tier</td>
<td>Tier4</td>
</tr>
<tr>
<td>Certification: Canada</td>
<td></td>
</tr>
<tr>
<td>Certification: EU Stage</td>
<td>Stage3b</td>
</tr>
<tr>
<td>Rated Power @ RPM</td>
<td>721KWA/2400rpm</td>
</tr>
</tbody>
</table>

### As Shipped Engine Data

| DPF SN                 | 3MA0A01B10 |
| ECU SN                | 11H0372DC1476 |

Caterpillar Confidential: Green

Content Owner: [Redacted]

Web Master (s): PS0 Web Based Systems Support

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Data Privacy Statement.
Type Approval Certificate issued by SNCH

Approval Authority for Netherlands

Type Approval Number specified

Identifying information for the engine

PARTIE 1

0. Généralités:
General:

0.1. Marque de fabrique (nom de l'entreprise):
Manufacturer’s designation of the company:

0.2. Appellation du constructeur du type de moteur représentatif et (le cas échéant) des types des moteurs de la famille:
Appellation of the manufacturer of the type of engine representative and (if applicable) of the family engines:

Type de moteur représentatif:
Type of engine:

Type de la famille:
Type of family:

Types des moteurs de la famille:
Engine types within the family:

4TTWPC
YD33880TCPEC
4TNAC, 4TPAC, 4TQAC, 4TSAC, 4TVAC, 4TTWAC, 4TTNAC
Komatsu Declaration of Conformity

Declaration of Conformity

The undersigned, Manufacturer:

KOMATSU UK Ltd
Durham Road, Birtley
Chester-le-Street
Co. Durham DH3 2QX, UK

Declares in accordance with Directive 2006/42/EC Annex I, Part 1, Section A that the machinery listed below:

Machine designation: Komatsu Hydraulic Excavator
Type: PC490LC-10
Serial number: K60148
Construction year: 2015
Engine type: SAA6D125E-6A

Conforms to the requirements of the following EC Directives:
- Machinery Directive 2006/42/EC and amendments
- Outdoor noise Directive 2000/14/EC, 2008/58/EC & amendments
- R&TTE Directive 1999/5/EC and amendments

Harmonised standards:

Additional requirements from Directive 2000/14/EC and amendments, if applicable:
- Conformity assessment procedure: Annex VIII
- Engine power according Directive 2000/14/EC: 270 KW @ 1900 rpm
- Guaranteed sound power level: 107 dB(A)
- Measured sound power level: 102 dB(A)
- Notified Body: MIRA Ltd, Nuneaton, CV10 6TU, UK

Type Examination Certificates, if applicable:
- Certificate number: e1197/681L*2010/2641073*00
- Issue date: 09/07/2010
- Notified Body: VCE, Bristol, GB-6XX, UK

This declaration relates exclusively to the machinery in the state in which it was placed on the market, and excludes all components which are added, or operations carried out subsequently by any third party.

Name and address of the person authorized to compile the technical file:

Komatsu UK Ltd
Durham Road, Birtley
Chester-le-Street
Co. Durham, DH3 2QX, UK

On behalf of the manufacturer,

Name(1), Function(2), Signature(3), Place(4), Date: 19/09/2015

(1) [Redacted]
(2) Quality Manager
(3) Signature:
(4) Birtley

Registered Office: Komatsu UK Ltd,
Durham Road, Birtley,
Chester-le-Street,
County Durham, DH3 2QX
VAT No: GB 84059669
Registered No: 09487035 England
Appendix 7: Suitable Retrofit Certificates

Green Urban and this particular product are both approved by the Energy Savings Trust.

Note that there are other approved companies and products available.

Identifying information about the NRMM chassis is optional, as retrofits can be moved between machines. If this is included in the certificate, a new certificate will need to be issued if the retrofit moves to a different machine.

Identifying information that can be found on the product and is specific to each retrofit.
## Machinery Certificate of Compliance for Non-Road Mobile Machinery (NRMM) Retrofit Programme

### Pollution abatement system manufacturer’s declaration of installation

<table>
<thead>
<tr>
<th>Certificate no.</th>
<th>PCERT45</th>
<th>Date of issue</th>
<th>06.04.2016</th>
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</thead>
</table>

### Vehicle/Machine Details

<table>
<thead>
<tr>
<th>Machine type</th>
<th>4 Tool Compressor</th>
<th>Model/series</th>
<th>7/71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>Doosan</td>
<td>Machine serial no.</td>
<td>521663</td>
</tr>
<tr>
<td>Engine manufacturer</td>
<td>John Deere</td>
<td>Engine model</td>
<td>4045DF270E</td>
</tr>
<tr>
<td>Engine serial no.</td>
<td>CD4045G075125</td>
<td>Engine EU Stage (e.g. IIIA)</td>
<td>Stage 2</td>
</tr>
<tr>
<td>Engine power (kW)</td>
<td>60 kw</td>
<td>Engine displacement (cc)</td>
<td>4.5 ltr</td>
</tr>
<tr>
<td>Vehicle registration mark (if applicable)</td>
<td>BB806026</td>
<td>Machine hours at fitment</td>
<td>2617</td>
</tr>
<tr>
<td>Machine owner details</td>
<td>Byrne Bros (formwork) Ltd</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pollution abatement system details

<table>
<thead>
<tr>
<th>Manufacturer or supplier</th>
<th>Baumot AG</th>
<th>Energy Saving Trust company approval no.</th>
<th>CN-0901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No</td>
<td>BAB 7512/25/70</td>
<td>Energy Saving Trust product approval no.</td>
<td>P CERT 45</td>
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<tr>
<td>Serial number</td>
<td>7512200123</td>
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</tbody>
</table>

### Manufacturer/installer details

<table>
<thead>
<tr>
<th>Name</th>
<th>BAUMOT UK LTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>6, Agincourt Street, Monmouth, Monmouthshire, NP25 3DZ</td>
</tr>
<tr>
<td>Telephone no.</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
</tr>
<tr>
<td>Installation date</td>
<td>06/04/2016</td>
</tr>
</tbody>
</table>

### Installation Sign-off

<table>
<thead>
<tr>
<th>Machine Owner/Operator</th>
<th>Signed</th>
<th>Manufacturer (or installer on their behalf)</th>
<th>Signed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td>Plant Manager</td>
<td>Name</td>
<td>Engineer</td>
</tr>
<tr>
<td>Company</td>
<td>Byrne Bros</td>
<td>Company</td>
<td>BAUMOT UK LTD</td>
</tr>
<tr>
<td>Date</td>
<td>06/04/2016</td>
<td>Date</td>
<td>06/04/2016</td>
</tr>
</tbody>
</table>

Identifying information about the NRMM engine is optional, as retrofits can be moved between machines. If this is included in the certificate, a new certificate will need to be issued if the retrofit moves to a different machine.

Beaumot AG and this particular product are both approved by the Energy Savings Trust. Note that there are other approved companies and products available.

Identifying information that can be found on the product and is specific to each retrofit.