#### SCHEDULE 2

Article 10(4) and 11(1)(a)

#### **MOBILE CRANES**

# PART 1

#### **DEFINED TERMS**

#### General

#### 1. In this Schedule—

"Goods Vehicles Type Approval Regulations" means the requirements applicable to goods vehicles which are prescribed by regulations made under section 54(1) of the Road Traffic Act 1988(1); and

"manufacturer"—

- (a) in relation to a mobile crane constructed with a chassis that has not previously formed part of another vehicle, means the person by whom that chassis was made; and
- (b) in relation to any other mobile crane, means the person by whom that mobile crane was constructed or adapted.

# Meaning of mobile crane

- **2.**—(1) In this Order "mobile crane" means a motor vehicle which satisfies the five conditions specified in sub-paragraphs (2) to (6).
- (2) The first condition is that the motor vehicle is specially designed and constructed, or is specially adapted, for the special purposes of lifting operations that cannot safely be carried out by a motor vehicle or trailer that complies in all respects with—
  - (a) the Construction and Use Regulations;
  - (b) the Authorised Weight Regulations; and
  - (c) the Goods Vehicles Type Approval Regulations.
  - (3) The second condition is that the gross weight of the crane exceeds 12,000 kilograms.
- (4) The third condition is that the motor vehicle has crane apparatus permanently mounted as part of the vehicle chassis design.
- (5) The fourth condition is that the motor vehicle is operated by a driver or other person riding on it.
- (6) The fifth condition is that the motor vehicle meets the requirements for registered use as a mobile crane under Part 4 of Schedule 1 to the Vehicle and Excise Registration Act 1994(2).
- (7) Any other motor vehicle which satisfies these conditions, but which does not comply in all respects with the authorisation requirements for mobile cranes specified in this Schedule, may nevertheless fall within the recognised category of special vehicles consisting of engineering plant if it satisfies the conditions specified in paragraph 2 of Schedule 3 and complies with the authorisation requirements applicable to engineering plant.

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<sup>(1) 1988</sup> c. 52.

<sup>(2) 1994</sup> c. 22.

# Category A, B or C mobile cranes

- 3.—(1) For the purposes of this Schedule, a mobile crane falls within Category A if—
  - (a) it does not exceed the restrictions on plated vehicle or axle weight specified in paragraph 30; and
- (b) it complies with any other requirements imposed by that paragraph; and references to a Category mobile cranes are to be construed accordingly.
  - (2) For the purposes of this Schedule, a mobile crane falls within Category B if—
    - (a) it does not fall within Category A;
    - (b) it does not exceed the restrictions on plated vehicle or axle weight specified in paragraph 31; and
- (c) it complies with any other requirements imposed by that paragraph; and references to a Category B mobile crane are to be construed accordingly.
  - (3) For the purposes of this Schedule, a mobile crane falls within Category C if—
    - (a) it does not fall within Category A or B;
    - (b) it does not exceed the restrictions on plated vehicle or axle weight specified in paragraph 32; and
- (c) it complies with any other requirements imposed by that paragraph; and references to a Category C mobile crane are to be construed accordingly.

## PART 2

# **CONSTRUCTION**

#### Wheeled vehicles

**4.** A mobile crane must be a wheeled vehicle.

## **Tyres**

5. Every wheel of a mobile crane must be fitted with a pneumatic tyre.

# Suspension

**6.** A mobile crane must have suspension on all axles.

# Braking requirements

- 7. A mobile crane must be fitted with—
  - (a) an efficient brake capable of braking the mobile crane at the maximum weight permitted under paragraphs 28 to 32 for a mobile crane of the Category in question when travelling at the maximum speeds for that Category permitted by this Schedule; and
  - (b) an efficient parking brake capable of holding the mobile crane stationary when necessary.
- **8.**—(1) A mobile crane is to be treated as being fitted with a brake that complies with paragraph 7 if it is fitted with a braking system that meets the construction, fitting and performance requirements for motor vehicles of category N3 set out—

- (a) in Annexes I, II and VII to Council Directive 71/320/EEC; and
- (b) if appropriate, in Annexes III, IV, V, VI and X to that Directive.
- (2) But, in their application to a mobile crane which has a maximum axle weight exceeding 12,500 kilograms, those requirements are subject to the modifications in paragraphs 9 to 12.
- **9.**—(1) The following modifications apply for the purposes of each Type O test conducted in accordance with Annex II to Council Directive 71/320/EEC.
- (2) References to a laden vehicle are to be taken to be references to a vehicle laden with the maximum technically permissible mass specified by the manufacturer for the vehicle speed specified for the test.
- (3) If the performance of a service braking device is determined by measuring the stopping distance in relation to the initial speed, the stopping distance in paragraph 2.1.1.1.1 of Annex II is to be taken to be—

$$0.15v + v^3 - 77.5$$

- (4) If the performance of the service braking device is determined by measuring the reaction time and the mean deceleration, the mean braking deceleration at normal engine speed in paragraph 2.1.1.1.1 of Annex II is to be taken to be at least 3 m/s<sup>2</sup>.
- (5) If the performance of a secondary braking device is determined by measuring the stopping distance in relation to the initial speed, the stopping distance in paragraph 2.1.2.1 of Annex II is to be taken to be—

$$0.15v + v^3 - 37.5$$

- (6) If the performance of the secondary braking device is determined by measuring the reaction time and the mean deceleration, the mean braking deceleration in paragraph 2.1.2.1 of Annex II is to be taken to be at least  $1.45 \text{ m/s}^2$ .
- **10.**—(1) The requirements of paragraphs 2.2.1.22 and 2.2.2.13 of Annex I to Council Directive 71/320/EEC do not apply.
- (2) The requirements of paragraphs 1.1.4.2 and 1.4 of Annex II to Council Directive 71/320/ EEC do not apply.
  - (3) In Annex I to Council Directive 71/320/EEC—
    - (a) in paragraph 2.2.1.23 the words "not mentioned in item 2.2.1.22 above" do not apply; and
    - (b) in paragraph 2.2.2.14 the words "not mentioned in item 2.2.2.13 above" do not apply.
- 11. For the purposes of Type I tests conducted, in accordance with paragraph 1.3 of Annex II to Council Directive 71/320/EEC, on a mobile crane falling within paragraph 9(3) of this Schedule, the reference to a laden vehicle is to be taken to be a reference to a vehicle laden with the heaviest weight possible without the sum of the weights transmitted to the road surface by all the wheels of any one axle exceeding 12,500 kilograms.
- **12.** The requirements of paragraph 2.1.3.2 of Annex II to Council Directive 71/320/EEC do not apply if wheel chocks are provided with the mobile crane and the wheel chocks are—
  - (a) suitable and sufficient;
  - (b) readily accessible; and
  - (c) capable, when used in conjunction with any parking brakes fitted to the vehicle, of holding the vehicle stationary when loaded to its maximum mass on a gradient of 12 per cent.

#### Design speed

- 13.—(1) A mobile crane that is specially adapted for the special purposes of lifting operations (as mentioned in paragraph 2(2)) must, when that adaptation is carried out, also be adapted as necessary so that it may operate on roads at speeds of 25 miles per hour or more.
- (2) Any other mobile crane must be designed and constructed to operate on roads at speeds of 25 miles per hour or more.

## Warning beacon

**14.** A warning beacon emitting an amber light must be fitted to a mobile crane.

# PART 3

# **PLATES**

- 15.—(1) A mobile crane must be equipped with a plate that is—
  - (a) securely fixed to the mobile crane in a conspicuous and readily accessible position; and
  - (b) indelibly marked with letters and figures, not less than 6 millimetres high, containing the information relating to the mobile crane which is specified in sub-paragraph (2).
- (2) The information is—
  - (a) the maximum axle weight for each axle, determined in accordance with sub-paragraph (3); and
  - (b) the maximum gross weight, determined in accordance with that sub-paragraph.
- (3) A maximum weight is determined in accordance with this sub-paragraph if—
  - (a) in the case of a vehicle which is specially adapted to be a mobile crane and to which the Goods Vehicles Type Approval Regulations applied immediately before such adaptation, it is the maximum weight at or below which the vehicle is considered fit for use by the Secretary of State; and
  - (b) in any other case, it is the maximum weight at or below which the mobile crane is considered fit for use by the manufacturer of the mobile crane.
- (4) In determining a maximum weight for the purposes of sub-paragraph (3), the person making the determination must have regard to—
  - (a) the design, construction and equipment of the mobile crane; and
  - (b) the stresses to which it is likely to be subject when in use.
- **16.**—(1) Where, in accordance with regulation 66 (plates for goods vehicles and buses) or 71 (marking of weights on certain vehicles) of the Construction and Use Regulations, a mobile crane is already fitted with a plate ("the original plate"), paragraph 15 does not require the crane—
  - (a) to be fitted with an additional plate; or
  - (b) to have additional information stamped on the original plate;
- if the condition set out in sub-paragraph (2) is satisfied.
- (2) The condition is that, at all times when the mobile crane is used on roads the gross weight of the crane does not exceed either the maximum gross weight stated on the original plate or, if no gross weight is so stated, the maximum unladen weight stated on the original plate.

- 17.—(1) In this paragraph "qualified person" means—
  - (a) the manufacturer of the vehicle (or a person duly authorised on his behalf);
  - (b) a person carrying on business as a manufacturer of motor vehicles or trailers (or a person duly authorised on his behalf); or
  - (c) a person authorised under this sub-paragraph by the Secretary of State.
- (2) No person may make any alteration to a mobile crane with a view to making it fit for use at any weight exceeding the weights stated on a plate fitted to it as mentioned in paragraph 15 or 16 unless he is a qualified person.
  - (3) Where such an alteration is made—
    - (a) the existing plate must be updated to show, for each description of maximum weight referred to in paragraph 15(2)(a) or (b), the new maximum at or below which the qualified person considers that the mobile crane will then be fit for use; or
    - (b) an additional plate must be added showing such new maximum weights.
  - (4) The following details must also be shown on the plate that shows the new weights—
    - (a) the name of the qualified person;
    - (b) an indication that he is the person responsible for determining the new weights; and
    - (c) where he is a qualified person authorised by the Secretary of State under sub-paragraph (1) (c), an indication of that fact.
- (5) In determining a maximum weight for the purposes of sub-paragraph (3), the qualified person must have regard to—
  - (a) the design, construction and equipment of the mobile crane;
  - (b) the alterations made to it; and
  - (c) the stresses to which it is likely to be subject when in use.
- **18.** Any additional plate that is specially fitted to a vehicle in order to comply with paragraph 15 or 17(3)(b) must be marked clearly with the words "SPECIAL TYPES USE".

# PART 4

# CONDITIONS RELATING TO USE

#### General restrictions

- 19. A mobile crane may only be used on roads for—
  - (a) testing;
  - (b) demonstration;
  - (c) delivery on sale;
  - (d) proceeding to, or returning from, a manufacturer or repairer;
  - (e) proceeding to, or returning from, the site of lifting operations; or
  - (f) carrying out such operations.
- **20.** A mobile crane that has an overall width exceeding 3 metres may only be used on roads for, or in connection with, lifting operations that are of the character that the mobile crane is specially designed and constructed, or adapted, to carry out.

- **21.**—(1) When a mobile crane is used on roads, the beacon fitted to it under paragraph 14 must be kept lit—
  - (a) when the crane is stationary at the site of the operations at which it is to be used; or
  - (b) when the crane is unable, on account of the weather conditions or otherwise, to maintain speeds appropriate to the road.
- (2) But, in the circumstances described in sub-paragraph (1)(a), the beacon may be switched off if—
  - (a) there is no reasonable prospect of the presence of the mobile crane causing a hazard to persons using the road (so that it is not necessary or desirable to warn persons of its presence); or
  - (b) it is likely that the use of the beacon could confuse or mislead other road users.

## Restriction on carriage of loads etc

- **22.**—(1) Any mobile crane that is used on roads must not—
  - (a) carry any load; or
  - (b) transport any goods or burden.
- (2) But that is subject to paragraphs 23 and 24.
- 23. A mobile crane may carry its own necessary gear and equipment.
- **24.** A mobile crane may lift or transport goods or burden in the course of carrying out lifting operations.

## Restriction on towing trailers

**25.** A mobile crane must not tow any trailer.

### Maximum width

**26.** The overall width of a mobile crane, together with the width of any lateral projection or projections of any load carried on it in accordance with this Schedule, must not exceed 6.1 metres.

# Maximum length

**27.** The overall length of a mobile crane, together with any forward or rearward projections of any load carried on it in accordance with this Schedule, must not exceed 30 metres.

# Restrictions relating to weight: all mobile cranes

- **28.** No mobile crane may exceed any of the restrictions as to weight that apply to a Category C mobile crane.
  - **29.** No mobile crane may exceed—
    - (a) any of the maximum weights, as determined by paragraphs 30 to 32, which are specified on the plate or plates fitted to it in accordance with paragraphs 15 to 18; or,
    - (b) in the case of a Category C mobile crane, such lesser maximum weight as may result from the calculation set out in paragraph 32(3).

## Restrictions relating to weight: Category A mobile cranes

- **30.**—(1) For a Category A mobile crane, the maximum axle weight that may be specified on the plate fitted to it in accordance with paragraphs 15 to 18 is—
  - (a) 11,500 kilograms for a single driving axle; and
  - (b) 10,000 kilograms for a single non-driving axle.
  - (2) No Category A mobile crane may have more than four axles.
- (3) For a Category A mobile crane with the number of axles specified in column 1 of an entry in Table 6—
  - (a) the distance between the two outermost axles of the crane must be at least the length specified in column 2 of the same entry; and
  - (b) the maximum gross weight of the crane that may be specified on the plate fitted to the crane in accordance with paragraphs 15 to 18 is the weight specified in column 3 of the same entry.

 Table 6

 Category A: axles and gross weight

Number of axles	Minimum distance between outermost axles	Maximum gross weight of crane
(Column 1)	(Column 2)	(Column 3)
2	3 metres	20,000 kilograms
3	5 metres	30,000 kilograms
4	6 metres	36,000 kilograms

## Restrictions relating to weight: Category B mobile cranes

- **31.**—(1) For a Category B mobile crane, the maximum axle weight that may be specified on the plate fitted to it in accordance with paragraphs 15 to 18 is 12,500 kilograms.
- (2) The maximum gross weight of a Category B mobile crane that may be specified on the plate fitted to it in accordance with paragraphs 15 to 18 is the number (expressed in kilograms) equal to the product of the following equation and then rounded up to the nearest 10 kilograms—

 $N \times 12,500$ 

(3) In sub-paragraph (2), N is the number of axles on the crane.

# Restrictions relating to weight: Category C mobile cranes

- **32.**—(1) For a Category C mobile crane, the maximum axle weight that may be specified on the plate fitted to it in accordance with paragraphs 15 to 18 is 16,500 kilograms.
- (2) The maximum gross weight of a Category C mobile crane that may be specified on the plate fitted to it in accordance with paragraphs 15 to 18 is 150,000 kilograms.
- (3) But where, in respect of any particular Category C mobile crane, the weight calculated in accordance with sub-paragraph (4) is less than 150,000 kilograms, the gross weight of that crane must not exceed that lesser weight.

Status: This is the original version (as it was originally made).

(4) The weight calculated in accordance with this sub-paragraph is the number (expressed in kilograms) equal to the product of the following equation and then rounded up to the nearest 10 kilograms—

 $N \times 16,500$ 

(5) In sub-paragraph (4), N is the number of axles on the crane.

# Speed restrictions

**33.**—(1) A mobile crane falling within Category A, B or C must not travel on a motorway, dual carriageway or other description of road at speeds exceeding the speed specified in Table 7 for that Category in respect of the description of road in question.

Table 7

Speed restrictions for Category A, B or C mobile cranes

Category of mobile crane	Motorway	Dual carriageway	Other roads
Category A	60 mph	50 mph	40 mph
Category B	50 mph	45 mph	40 mph
Category C	40 mph	35 mph	30 mph

- (2) Nothing in this Schedule is to be taken to authorise travel at—
  - (a) any speed in excess of any speed restriction imposed by or under any other enactment; or
  - (b) in the case of a mobile crane referred to in paragraph 2(7) which falls within the recognised category of special vehicles consisting of engineering plant, any speed in excess of those specified in paragraph 20 of Schedule 3.

# PART 5

# APPLICATION OF REGULATIONS MADE UNDER SECTION 41 OF THE ROAD TRAFFIC ACT 1988

# Category A mobile cranes

- **34.**—(1) A Category A mobile crane must comply with—
  - (a) the Construction and Use Regulations, apart from the provisions of those Regulations specified in Table 8; and
  - (b) the Lighting Regulations.

Table 8

Category A: Construction and Use Regulations that do not apply

Non-applicable Regulations	Subject	
8	Width	

Non-applicable Regulations	Subject
80	Over-riding weight regulations

# Category B or C mobile cranes

- **35.**—(1) A Category B or C mobile crane must comply with—
  - (a) the Construction and Use Regulations, apart from the provisions of those Regulations specified in Table 9; and
  - (b) the Lighting Regulations.
- (2) But regulations 49, 51, 64 and 65 are disapplied in relation to a Category B or C mobile crane only to the extent that it is not possible for the crane to comply with those regulations on account of the need to perform the lifting operations that it is specially designed and constructed (or specially adapted) to carry out.

 Table 9

 Categories B or C: Construction and Use Regulations that do not apply

Non-applicable Regulations	Subject
7	Length
8	Width
15,16	Braking systems
18(1A) to (9)	Maintenance and efficiency of brakes
25	Tyre loads and speed ratings
49	Rear under-run protection
51	Sideguards
64	Spray suppression devices
65	Maintenance of spray suppression devices
75 to 80	Other maximum permitted weight limits of vehicle and trailer, other than articulated vehicle
82	Restrictions on use of vehicles carrying wide or long loads