

HEAVY VEHICLE

MINIMUM STANDARDS

The Heavy Vehicle Minimum Standards are structured as follows:

MINIMUM REQUIREMENTS	Required for all heavy vehicles irrespective of the owner (LORA, Hire Company, Supply Chain Partner)
LORA PROCUREMENT REQUIREMENTS	Required for all heavy vehicles procured by LORA
MINIMUM DOCUMENT REQUIREMENTS	Documentation required for all heavy vehicles
PROJECT/SITE SPECIFIC REQUIREMENTS	Project/site specific requirements for heavy vehicles as determined by the project risk assessment

FEATURE	REQUIREMENTS
MINIMUM REQUIREMENTS – HEAVY VEHICLES	
AUSTRALIAN DESIGN RULES (ADR)	Vehicle complies to 2nd or 3rd edition Australian Design Rules (ADR). This can be confirmed by the vehicle compliance plate: https://www.infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-design-regulation/australian-design-rules
ANTI LOCK BRAKING SYSTEM (ABS)	Anti-Lock Braking to be fitted to all Heavy Vehicles over 4.5t GVM
AIR CONDITIONING	Air conditioning shall be fitted.
FIRST AID KIT	A complete First Aid Kit, Class B and in date. Location of the kit must be clearly signed on outside of equipment.
DUAL AIR BAG	Dual air bag to be fitted.
STANDARD JACKING & TYRE CHANGING EQUIPMENT	OEM supplied equipment and tools available for tyre changes (jack, wheel brace, etc.)
SECURED SPARE TYRE	Secured to vehicle body, suitable for vehicle and in good condition.
REFLECTIVE TAPE	Material: The tape shall be weather resistant with a reflective surface and adhesive back Size: Minimum 50mm wide Installation: One strip evenly applied to LH and RH side and rear of the vehicle
FIRE EXTINGUISHER + BRACKET	A minimum 4.5kg dry chemical (ABE) for all locations, within inspection/test requirements and charged. The extinguisher/s should be: - Fitted in a secure, easily accessible location (i.e. vehicle tray/cab) - Fitted with legible instructions and coloured correctly (i.e. red with white band) - Fitted with a pressure gauge and hose to assist accessing awkward areas - Maintained in accordance with AS 1851 Note: This is a minimum requirement. Specific requirements for extinguisher type and/or capacity will be defined by certain work activities or sites.
AMBER ROTATING BEACON (360 DEGREES)	At least one amber beacon is fitted, with easily accessible on/off toggle switch to operate. The beacon shall be mounted as near as possible to the top of the vehicle and be clearly visible in normal daylight up to a distance of 200 metres (and closing) in all directions.
IN VEHICLE MONITORING SYSTEM (IVMS) LOR VEHICLES	As part of Laing O'Rourke's preventative maintenance and incident strategy, all Laing O'Rourke commercial vehicles shall be fitted with IVMS hardware. These units report events that have been specifically set, which include: - Fatigue - Speed - Harsh acceleration, braking and idle - Excessive revving - Possible accident - Seat belts Heavy vehicles being used for LOR project delivery must be fit for purpose. IVMS must be fitted to all Laing O'Rourke heavy vehicles.

FEATURE	REQUIREMENTS
TARE & GVM WEIGHT DECALS (VERIFY ALLOWABLE AXLE WEIGHTS FOR YOUR RELEVANT STATE LAW/REGULATIONS AGAINST THE GVM STICKER)	Tare/GVM Decals: Black lettering on a white background, non-reflective adhesive backed decal Suggested Size: 300 x 250mm Suggested Installation: Evenly applied to LH and RH side of asset
TRAFFIC TRIANGLES (SET OF THREE)	Traffic triangles, designed to be used in the event of vehicle break down. Shall be secured in vehicle to prevent unintended movement
WHEEL CHOCKS WITH SECURE CARRYING MOUNTS	Rubber and suitable for vehicle requirements. Shall be secured to vehicle with bracket to prevent unintended movement.
REVERSE ALARM	Fitted to central, unobstructed area of vehicle and rearwards facing. The alarm's noise level range shall be 87 to 112 dB(a) measured at a distance of 1 metre from the alarm. The alarm shall active each time the vehicle is placed in reverse and not be fitted with an on/off feature. The alarm must be "squawk type" alarm unless otherwise specified by the project
EMERGENCY STOPS	Service / Fitter, Water, fuel carts, and rail vehicles ONLY. As per National Standard for Plant NOHSC: 1010 (1994), clause 14, sub section (a), (b) and (c) emergency stop devices must: (a) Be prominent, clearly and durably marked and immediately accessible to each operator of the plant; and (b) Have handles, bars or push buttons which are coloured red. (c) Not be able to be affected by electrical or electronic circuit malfunction. d) Are of "stop and Lock-off" type: so that the plant cannot be restarted after an emergency unless the stop control has been reset. Location: Emergency stop devices shall be positioned for easy access and for non-hazardous operation by the operator.
REVERSING CAMERA	Service / Fitter, Water, fuel carts, and rail vehicles ONLY. Vehicles fitted with a reverse camera must have a: • Robust camera mounted to provide adequate vision to the rear for the operator • Monitor of an adequate clarity which must be mounted so as not to hinder operator's forward vision or distract operator Reverse camera and monitor shall only be installed by the OEM or a qualified technician.
MINIMUM REQUIREMENTS VEHICLE LOADING CRANE (VLC)	
OVERHEAD POWER LINE SIGNAGE AFFIXED NEAR CRANE CONTROLS	Ensure overhead power line and equipment minimum clearance height warning signage is affixed in cabin; clearly visible to operator.
WARNING SIGNAGE AFFIXED TO THE CRANE IN CABIN (FOR APPLICABLE EQUIPMENT)	Signage to warn of pinch points, reeving winches, warnings, emergency stops clearly visible to operator.
SAFETY SIGNAGE/DECALS IN PLACE FOR SAFE WORKING LIMITS & WORKING LOAD LIMIT (WLL)	The crane shall be marked in accordance with the marking requirements specified in the appropriate part of AS 1418, specifically Section 14.2 Marking. The crane and crane subassemblies shall be marked legibly and permanently with the manufacturer's traceable marking. Independent hoisting mechanisms (e.g. hook blocks) shall include marking for the rated capacity. Warning decals for pinch point areas (e.g. reeving winch) shall be affixed. Additional decals shall be affixed to the reeving winch (if fitted); clearly identifying operator controls and the drum's direction.

FEATURE	REQUIREMENTS
	Each lifting attachment, shall be marked in a permanent manner with the following information: (a) The mass of the lifting attachment expressed in the same unit as the rated capacity of the lifting attachment. (b) The rated capacity of the lifting attachment in either kilograms or tonnes. (c) Name or mark of the manufacturer or distributor of the attachment, where applicable. (d) An identification number. (e) Details of wire rope used on the lifting attachment, i.e. (i) nominal size; (ii) grade (quality); (iii) construction; and (iv) length. (f) Details of chain used on the lifting attachment, i.e. (i) nominal size; and (ii) grade (quality). Marking shall be in the English language.
EXTERNAL RATED CAPACITY LIGHTING	External rated capacity lighting shall be fitted.
CRANE LOAD LIFTING CHART	Vehicle loading crane to have a Crane Load Lifting Chart specific to the make and model of the loading crane. This must be visible from the operating position of the crane.
CRANE INSPECTIONS	Crane inspection, Maintenance and service records that include information on when the next service is due.
WARNING SIGNAGE AFFIXED IN CABIN (FOR APPLICABLE EQUIPMENT)	Ensure overhead power line and equipment minimum clearance height warning signage is affixed; clearly visible to operator.
EMERGENCY STOPS	As per National Standard for Plant NOHSC: 1010 (1994), clause 14, sub section (a), (b) and (c) emergency stop devices must: (a) Be prominent, clearly and durably marked and immediately accessible to each operator of the plant; and (b) Have handles, bars or push buttons which are coloured red. (c) Not be able to be affected by electrical or electronic circuit malfunction. (d) Are of "stop and Lock-off" type: so that the plant cannot be restarted after an emergency unless the stop control has been reset. Location: Emergency stop devices shall be positioned for easy access and for non-hazardous operation by the operator.
ADDITIONAL LORA PROCUREMENT REQUIREMENTS – HEAVY VEHICLES	
IN VEHICLE MONITORING SYSTEM (IVMS)	As part of Laing O'Rourke's preventative maintenance and incident strategy, all Laing O'Rourke commercial vehicles shall be fitted with IVMS hardware. These units report events that have been specifically set, which include: • Fatigue • Speed • Harsh acceleration, braking and idle • Excessive revving • Possible accident • Seat belts Heavy vehicles being used for LOR project delivery must be fit for purpose. IVMS must be fitted to all Laing O'Rourke heavy vehicles.
FLOOR MATS	Front and rear rubber floor mats shall be fitted, OEM or aftermarket design.
ASSET IDENTIFICATION STICKERS (SELECT OWNED ASSETS ONLY)	Asset Decals: Black lettering on a white background, non-reflective adhesive backed decal Suggested Size: 200 x 100mm Installation: Evenly applied to LH and RH side of asset

FEATURE	REQUIREMENTS
DOCUMENTATION MINIMUM REQUIREMENTS (Paper or electronic – must be available at the time of mobilisation)	
ROAD REGISTRATION	Registration paperwork, and decal* (if applicable to the state of registration)
OPERATORS MANUAL	OEM operators manual available and in good condition.
PLANT RISK ASSESSMENT	Specific to make and model of equipment.
DAILY PRE-START BOOK	Specific to category of equipment.
SERVICE HISTORY	Previous 3 months of preventative maintenance and repairs.
VLC - SERVICE HISTORY	Vehicle loading crane service history
VLC - CERTIFICATION	Periodic test certification including lifting gear
PROJECT / SITE / CLIENT SPECIFIC REQUIREMENTS Items that may be required as determined by the project/site and/or client	
IN VEHICLE MONITORING SYSTEM (IVMS)	As part of Laing O'Rourke's preventative maintenance and incident strategy, all Laing O'Rourke commercial vehicles shall be fitted with IVMS hardware. These units report events that have been specifically set, which include: • Fatigue • Speed • Harsh acceleration, braking and idle • Excessive revving • Possible accident • Seat belts Heavy vehicles being used for LOR project delivery must be fit for purpose. IVMS must be fitted to all Laing O'Rourke heavy vehicles. IVMS must be fitted to other vehicles on Laing O'Rourke projects, where the requirement has been identified in the Project Risk Assessment. The following must be considered when conducting the risk assessment: • Would the location / position of the vehicle need to be monitored in the event of an emergency? (e.g. vehicle being use to undertake remote work, lone worker using vehicle etc.) • Will the heavy vehicle be used an integral part of undertaking the work? (e.g. traffic control, driving to multiple locations to supervise/inspect/undertake work etc.) • Will monitoring distance travelled and driver behaviour (i.e. speed, braking etc.) be required as part of managing fatigue? • Could the vehicle exceed speed limits when being used for/on the project? (e.g. being driven on public roads, haul roads, large open space etc.) The requirement for IVMS must be documented in the Project / client requirement section of the pre mobilisation document.
REVERSING CAMERA	Vehicles fitted with a reverse camera must have a: • Robust camera mounted to provide adequate vision to the rear for the operator • Monitor of an adequate clarity which must be mounted so as not to hinder operator's forward vision or distract operator Reverse camera and monitor shall only be installed by the OEM or a qualified technician.
VHF RADIO AND AERIAL	An operational VHF radio shall be fitted in vehicle cab, be easily accessible to the operator and connected to the vehicle's battery. A compatible aerial shall be fitted securely to the vehicle (i.e. bull bar).
BULL BAR	Australian Design Rules (ADR) compliant bull bar shall be air bag compatible, commercial grade and fitted with turn signals.
LOCKABLE BATTERY ISOLATION SWITCH C/W IDENTIFICATION DECAL	A means of immobilising the vehicle by isolating the battery so the vehicle cannot be started and/or operated by an unauthorised person. The isolation switch must be lockable, resistant to weather and clearly identified (i.e. isolator decal). Required Colour: Battery Isolator – Red
HIGH MOUNTED TAIL LIGHTS	ADR compliant high mount lights with brake and turn signal features (reversing optional). Shall be mounted to the highest point of the vehicle (i.e. light bar or top of load guard), facing rearwards for the purpose of alerting other road users to vehicle movement.
WHEEL NUT INDICATORS	Fitted to wheel nuts to help identify any loose nuts, preventing the possibility of wheel detachment. Indicators should be of a suitable design and yellow in colour.

FEATURE	REQUIREMENTS
SECURED SPARE TYRE (SECONDARY)	In good condition and suitable for vehicle. The secondary spare tyre shall be secured to the vehicle but should not impair the operator's vision.
MESH LOAD GUARD (VEHICLE TYPE DEPENDENT)	ADR compliant load guard's shall be construction from strong material (i.e. steel), of strong mesh design and secured to tray/tub body to protect the vehicle's occupants from projectiles in the event of an accident.
AUTOMATIC HEADLIGHT ACTIVATION (LOW BEAM)	ADR compliant automatic headlight activation kits (OEM/aftermarket) significantly increase vehicle visibility. The low beam headlights shall be wired through the ignition switch or by other means so the headlights come on automatically when the vehicle is started.
MINE FLAG (MINIMUM HEIGHT FROM GROUND OF 3M)	Mine flags help improve vehicle visibility when operating on work sites. A detachable mine flag (whip flag) shall be fitted to the highest and most visible point of the vehicle (i.e. light bar or FOPS). Features: - Constructed from strong material (i.e. fibreglass) - High Vis markings - red LED for night driving (located at highest point of flag) Quick release coupler
DRIVING LIGHTS	Driving lights assist the driver while operating at night, dawn or dusk. They shall be ADR compliant and securely fitted to the bull bar with an easily accessible on/off toggle switch to operate.
HAND RAILS/GATES (AROUND SIDES OF THE TRAY)	Suitably designed hand rails (edge protection) shall be fitted to prevent falls from height occurring when utilising upper decks. They shall be a minimum of 1m high, with gaps of less than 450mm between each mid rail, toe boards installed (minimum 100mm wide), manufactured from metal and ADR complaint.
ACCESS STAIRS WITH HAND RAILS TO THE TRAY (THREE POINTS OF CONTACT)	Suitably designed access stairs with hand rails shall be fitted to prevent trips and falls from height occurring when accessing heavy vehicle rear trays. They shall be manufactured from steel and ADR complaint.
HANDBRAKE ALARM	A handbrake alarm is designed to sound if the vehicle's handbrake is engaged whilst being operated and shall only be installed by the OEM or a qualified technician.
WORKING LIGHTS	They shall only be installed by qualified and competent persons and securely fitted to the vehicle with an easily accessible on/off toggle switch to operate.
REVERSE LIGHTS	In addition to OEM standard reverse lights, aftermarket reverse lights are used when extra lighting is required. Reverse lights shall only be installed by qualified and competent persons, be securely fitted to the vehicle, automatically activate when the vehicle is placed in reverse and meet ADR compliance.
SPILL KIT	General vehicle spill kit design to assist in small fluid (i.e. oil or coolant) spills. The spill kit bag shall be weather proof to avoid damaging contents.
CARGO NET	Provides load restraint, fitted to tray and open backed vehicles to secure loose objects and protect the vehicle's occupants or others from projectiles.
TOOL BOX	Storage solution to keep equipment and tools securely and safety packed away. Note: Loaded tool box/s weight and vehicle GVM shall be considered.
LADDER RACKS	Ladder storage solution. Note: Ladder/s weight and vehicle GVM shall be considered.
SATELLITE PHONE	Satellite phone required when operating in remote areas with areas no or weak mobile phone coverage.
OPERATOR PROTECTIVE STRUCTURE - ROLLOVER (ROPS)	Rollover protective structure meeting ADR and performance requirements. Compliance label must be permanently fitted to structure, legible and contain following information: - Name and address of manufacturer - Identification number/serial no. of guard (if any) - Year of construction (i.e. year manufacturing process completed) - Maximum vehicle mass for which ROPS meets performance requirements of the standard - Vehicle make, model, or VIN the ROPS is intended - Reference to the relevant standard to which the guard conforms Any other information deemed relevant by the manufacturer

FEATURE	REQUIREMENTS
FALL ON PROTECTIVE STRUCTURE (FOPS)	Fall on protective structure meeting ADR and performance requirements. Compliance label must be permanently fitted to structure/cabin, easy to read and contain following information as minimum: - Name and address of manufacturer or guard constructor - Identification number of guard (if any) - Machine make, model(s), or serial number(s) the guard is designed to fit - Reference to the relevant standard the guard conforms to (i.e. ISO 3449), plus the performance level (i.e. Level 1) Any other information deemed relevant by the manufacturer.
EMERGENCY STOPS	As per National Standard for Plant NOHSC: 1010 (1994), clause 14, sub section (a), (b) and (c) emergency stop devices must: (a) Be prominent, clearly and durably marked and immediately accessible to each operator of the plant; and (b) Have handles, bars or push buttons which are coloured red. (c) Not be able to be affected by electrical or electronic circuit malfunction. (d) Are of "stop and Lock-off" type: so that the plant cannot be restarted after an emergency unless the stop control has been reset. Location: Emergency stop devices shall be positioned for easy access and for non-hazardous operation by the operator.
VEHICLE RECOVERY KIT	Designated driver or passenger shall be competent to use the recovery equipment. The vehicle recovery kit shall have: - Snatch strap (suitable to vehicle weight) - D shackles (suitable to vehicle weight) - Recovery gloves - High vis vest - Tyre gauge Recoil dampener
TOW BAR WITH TOWING HITCH & BALL	Shall be ADR compliant, rated for vehicle towing capacity and fitted by qualified persons, OEM or aftermarket suitable.
CALL SIGNS (HIGH VIS OR STANDARD)	Used for communication purposes between road users. Call Sign Decals: Typically, black lettering on a reflective yellow high vis background (high vis version) or black lettering on silver or white non-reflective background (standard, non-mine spec) Suggested Size: 500 x 250mm Installation: Evenly applied to LH, RH and rear of asset
LOCKABLE STARTER ISOLATION SWITCH C/W IDENTIFICATION DECAL	A means of immobilising the equipment starter. The isolation switch must be lockable, resistant to weather and clearly identified. Required Colour: Starter Isolator – Yellow
WEED AND SEED	A statutory declaration for all Plant and Equipment that they are clean and free from weed and seeds. This is to confirm that the Plant and Equipment has not gone through areas with weed and in particular (parthenium weed or giant rat's-tail grass). If the item has gone through areas of this weed, a clean down certificate will be required.
SIDE UNDERRUN PROTECTION DEVICES (SUPDs)	Side Underrun Protection Devices (SUPDs)
CLASS IV (WIDE ANGLE) MIRRORS	Refer to Vehicle Standard (Australian Design Rule 14/02 - Rear Vision Mirrors) 2006 for technical specifications.
CLASS V (NEAR SIDE BLIND SPOT) MIRROR	Refer to Vehicle Standard (Australian Design Rule 14/02 - Rear Vision Mirrors) 2006 for technical specifications.
CLASS VI (FRONT BLIND SPOT) MIRROR	Class VI mirrors to give a view of the roadway directly in front of the driver's cab.
BLIND SPOT DETECTION	Blind Spot detection & elimination through Audible & Visual Requirements. Ref: truck industry council for voluntary code of practice for options.

FEATURE	REQUIREMENTS
REAR WARNING SIGNAGE	An effective, easy to fit and relatively cheap method of raising awareness is a warning sign on the back of trucks and trailers alerting cyclists / motorcyclists to the dangers of undertaking these vehicles.
FRONT NEAR SIDE WARNING SIGNAGE	To raise awareness to pedestrians attempting to walk closely around and past heavy vehicles in their blind spots.
WHEEL NUT INDICATORS	Fitted to the wheel nuts to help identify any loose nuts.
CANVAS SEAT COVERS	Removable canvas seat covers shall be fitted to all seats. Must be durable and waterproof.
LOAD SECURING EQUIPMENT	A load on a heavy vehicle must be restrained by a load restraint system that prevents the load from moving in relation to the heavy vehicle. Is capable of withstanding the forces that would result in the circumstances mentioned in the Load Restraint Guide.
VEHICLE LOAD SCALES	Devices for determining the approximate loaded weight of a truck. On-board scales can either load cell technology or pressure readings from air suspension to calculate the weight on the vehicle axles.