

IMIRR05

Recover Light Vehicles Using Advanced Winching Techniques

Overview

This standard is about recovering vehicles using advanced winching techniques. For the purpose of this standard light vehicles are vehicles up to 3500kgs gross vehicle mass (GVM).

Performance Criteria

You must be able to:

1. keep accurate and up-to-date records as required by relevant legislation
2. identify and wear suitable Personal Protective Equipment (PPE) which complies with the legal and industry codes of practice
3. safeguard and maintain your own health and safety and that of those likely to be affected by your work in accordance with current legislation in relation to preparing a winching operation
4. meet relevant legislative, organisational and environmental requirements relevant to preparing the winching operation
5. comply with any existing site risk assessments and carry out a dynamic risk assessment
6. maintain the security of machinery and equipment on site
7. gain access to the machine safely and get into a secure working position when carrying out off-the-ground activities
8. carry out routine operator maintenance on the winch unit to include power unit, drive system (shaft, chain, hydraulic, electrical or direct drive), braking system, other moving parts and guarding, as appropriate to the machine used, following manufacturers' recommendations
9. carry out pre-start checks, deploy winch cable at a distance and carry out a practical check on all operating functions of the equipment including safety devices, winch controls, clutches and brakes, as appropriate, prior to winching
10. agree the signaling system with the winch operator and banksman as appropriate
11. deploy winch cable avoiding obstacles to the winching process
12. assess the operational and environmental requirements for the site and plan safe and efficient winch route
13. identify (and calculate) the different resistances to winching when recovering a vehicle

Knowledge and Understanding

You need to know and understand:

1. your own role in company working practices and industry good practice relevant to preparing a winching operation
2. how and why to initiate and maintain effective communication when preparing a winching operation
3. the implications of working at height in relation to routine operator checks and basic maintenance
4. how to identify hazards and comply with the control procedures of risk assessments in relation to preparing a winching operation
5. emergency planning and procedures for the site
6. the principles of winch theory, resistances to winching a casualty and stabilisation of the recovery vehicle
7. the methods used to change direction of pull or increasing the pull of the winch
8. causes of, and how to prevent potential pollution and environmental damage when preparing a winching operation
9. the function of all operating controls for a winch
10. the principles of powered winch operation and the loads to be applied, including the multiplication of forces when pulleys, snatch blocks, strops and anchor points are used
11. the points to inspect on the cable and terminal fixings, the range and signs of possible cable damage and the limits to cable wear and tear that are acceptable for winching
12. the bearing capacity of pulley anchor strops in various configurations
13. the safety clearance/safety zone from the cable that should be respected
14. the capabilities, limitations and methods of operating the winch on steep ground
15. the types of winch used to recover light vehicles
16. the types of winch ropes used to recover light vehicles
17. the ancillary equipment used when winching a light vehicle

Scope/Range

1. Ancillary equipment:

- a) shackles
- b) snatch blocks
- c) chains
- d) strops
- e) capston

IMIRR06

Remove and Transport Heavy Vehicles

Overview

This standard is about recovering and transporting heavy upright vehicles from the roadside or similar hard, level standing. For the purpose of this standard heavy vehicles are vehicles of 3500kgs gross vehicle mass (GVM) and above.

Performance Criteria

You must be able to:

1. identify and wear suitable Personal Protective Equipment (PPE) which complies with the legal and industry codes of practice
2. secure the immediate safety of the driver and passengers effectively, if present
3. use a recovery vehicle and recovery equipment which is suitable for the type, condition and weight of vehicle to be transported, is suitable for the nature of the situation and complies with legal requirements
4. use warning lights in a way which complies with legal requirements and current industry codes of practice
5. make the vehicle safe for transportation
6. inform the relevant authorities promptly where the condition of the vehicle and its removal presents a hazard
7. position and rig the recovery vehicle and recovery equipment to comply with industry codes of practice, minimise the need to re-rig and secure the best recovery advantage
8. fit all necessary loading and securing equipment to comply with legal requirements, industry codes of practice, manufacturer's operating instructions and your organisation's procedures
9. ensure your roadside working practices and procedures during all removal and loading activities comply with legal requirements and industry codes of practice for the type of road involved, the roadside situation and prevailing weather conditions
10. contact the relevant authority promptly where the loading maneuver is likely to obstruct the flow of traffic
11. ensure the recovery site is left free from debris, waste, tools, equipment and cones prior to moving off
12. transport the vehicle to the relevant destination without causing further damage

13. transport and unload the recovered vehicle to comply with legal requirements, industry codes of practice, manufacturer's operating instructions and your organisation's requirements
14. ensure your records are accurate, complete and passed to the relevant person(s) promptly
15. ensure no recovery equipment is overloaded adhering to manufacturer's instructions, equipment loading instructions and company procedures

Knowledge and Understanding

You need to know and understand:

1. the legal requirements and industry codes of practice governing site protection and recovery operations
2. your organisation's operating, reporting and recording procedures
3. the limits of your authority for dealing with hazardous substances
4. the importance of wearing suitable personal protective equipment (PPE) which complies with the legal and industry codes of practice
5. how to complete recovery records and the importance of doing so
6. the types, purpose and use of the vehicle recovery equipment in the Scoping Statement for this standard
7. the safe working loads for recovery equipment, axle weights and stability
8. how to assess the most suitable recovery method for the situation and the condition of the vehicle involved
9. how to assess the weight of a casualty vehicle, including a load where appropriate
10. the effect of weather conditions on the feasibility of recovery operations and how they are conducted
11. how to use suitable site to base communication methods
12. how to give clear instructions to customers
13. the circumstances in which to call for specialist advice and assistance
14. the operation of braking and transmission systems using appropriate diagnostic techniques
15. the principles of loading and load containment
16. on site recovery planning and control techniques
17. how to prepare and secure casualty vehicles for transportation
18. how to check for and deal with any casualty vehicle system and load leakage
19. the dangers associated with roadside recovery operations and how to lessen the risks to yourself, customers and other road users
20. how to identify casualty vehicles carrying hazardous substances
21. the importance of informing the authorities where roadside operations are likely to affect other traffic

- 22. how to position and rig recovery vehicles
- 23. how to fit towing, loading and transportation equipment for the types of vehicle you deal with
- 24. how to work safely at the roadside following industry codes of practice
- 25. how to perform safety checks on the casualty vehicles
- 26. how to clear the site prior to moving off
- 27. how to use suitable warning lights
- 28. how to avoid damage to casualty vehicles during transportation

Scope/Range

1. Recovery equipment is:

- a. tow poles
- b. transporters
- c. vehicle mounted recovery cranes
- d. winches
- e. truck mounted loaders
- g. trailers
- h. spec lifts/support lifts/underlifts

2. Roadside situation is:

- a. off a live carriageway
- b. on a live carriageway

3. Weather conditions are:

- a. poor visibility
- b. light
- c. dark
- d. dry
- e. rain
- f. snow
- g. ice
- h. wind
- i. extreme temperatures

IMIRR07

Recover Heavy Vehicles Using Advanced Winching Techniques

Overview

This standard is about recovering vehicles using advanced winching techniques. For the purpose of this standard heavy vehicles are vehicles of 3500kgs gross vehicle mass (GVM) and above.

Performance Criteria

You must be able to:

1. keep accurate and up-to-date records as required by relevant legislation
2. identify and wear suitable Personal Protective Equipment (PPE) which complies with the legal and industry codes of practice
3. safeguard and maintain your own health and safety and that of those likely to be affected by your work in accordance with current legislation in relation to preparing a winching operation
4. meet relevant legislative, organisational and environmental requirements relevant to preparing the winching operation
5. comply with any existing site risk assessments and carry out a dynamic risk assessment
6. maintain the security of machinery and equipment on site
7. gain access to the machine safely and get into a secure working position when carrying out off-the-ground activities
8. carry out routine operator maintenance on the winch unit to include power unit, drive system (shaft, chain, hydraulic, electrical or direct drive), braking system, other moving parts and guarding, as appropriate to machine used, following manufacturer's recommendations
9. carry out pre-start checks, deploy the winch cable a distance and carry out a practical check on all operating functions of the equipment including safety devices, winch controls, clutches and brakes, as appropriate, prior to winching
10. agree the signaling system with the winch operator and banksman as appropriate
11. deploy winch cable avoiding obstacles to the winching process
12. assess the operational and environmental requirements for the site and plan safe and efficient winch route
13. identify (and calculate) the different resistances to winching when recovering a vehicle

Knowledge and Understanding

You need to know and understand:

1. your own role in company working practices and industry good practice relevant to preparing a winching operation
2. how and why to initiate and maintain effective communication when preparing a winching operation
3. the implications of working at height in relation to routine operator checks and basic maintenance
4. how to identify hazards and comply with the control procedures of risk assessments in relation to preparing a winching operation
5. emergency planning and procedures for the site
6. the principles of winch theory, resistances to winching a casualty and stabilisation of the recovery vehicle
7. the methods used to change direction of pull or increasing the pull of the winch
8. causes of, and how to prevent potential pollution and environmental damage when preparing a winching operation
9. the function of all operating controls for a winch
10. the principles of powered winch operation and the loads to be applied, including the multiplication of forces when pulleys, snatch blocks, strops and anchor points are used
11. the points to inspect on the cable and terminal fixings, the range and signs of possible cable damage and the limits to cable wear and tear that are acceptable for winching
12. the bearing capacity of pulley anchor strops in various configurations
13. the safety clearance/safety zone from the cable that should be respected
14. the capabilities, limitations and methods of operating the winch on steep ground
15. the types of winch used to recover heavy vehicles
16. the types of winch ropes used to recover heavy vehicles
17. the ancillary equipment used when winching a heavy vehicle

Scope/Range

1. Ancillary equipment:
 - f) shackles
 - g) snatch blocks
 - h) chains
 - i) strops
 - j) capston

IMIRR10

Incident Management for Motor Vehicle Recovery Operations

Overview

This standard is about Incident Manager activities for recovery of motor vehicles in major incident situations or where it is deemed essential to the recovery operation.

Performance Criteria

You must be able to:

1. establish the emergency services command structure
2. communicate effectively with interested parties
3. determine the vehicle(s) involved and estimate their weight
4. establish if there is any risk to the recovery team from spilt loads
5. carry out a site survey and construct a risk assessment
6. calculate the resistances relating to the recovery of the casualty(s)
7. determine the recovery equipment needed
8. construct a method statement
9. communicate the method statement and risk assessment to all interested parties
10. establish a communication method for the incident
11. control the recovery operation throughout
12. continually assess the situation and alter plans and risk assessments to reduce risk (where required)
13. communicate any changes to the plan to the emergency services and recovery team
14. carry out a recovery team debrief
15. construct a post recovery report and pass to the relevant person(s)

Knowledge and Understanding

You need to know and understand:

1. the Health and Safety legislation that affects vehicle recovery operations
2. safety implications relating to new technologies
3. how to communicate effectively with the emergency services and others
4. the roles and command structure of the emergency services

5. how to construct a risk assessment
6. how to construct a Method Statement
7. the different types of recovery equipment and their capabilities
8. the equipment your own organisation has available to carry out a recovery operation
9. the additional equipment that might aid the recovery and where it might be sourced from
10. the importance of discussing the recovery plan with the emergency services
11. how to communicate the recovery plan effectively to the recovery technicians
12. the importance of listening to the recovery technicians where alternative methods may be available
13. the importance of communicating effectively with third parties assisting with the operation
14. how to establish a communication protocol for the recovery operation
15. how to control the operation to minimise risk to the recovery team, the emergency services and the general public
16. the importance of a continual Dynamic Risk Assessment during the operation
17. what a hot and cold debrief is and their importance
18. how to construct a post operation report
19. the importance of post operation vehicle and equipment checks

Scope/Range

1. New technologies include:
 - a. Hybrid
 - b. Plug in Electric
 - c. CNG (Compressed Natural Gas)
 - d. LPG (Liquid Petroleum Gas)
 - e. Hydrogen Cell
 - f. Any other emerging technologies

IMIRR15

Carry out Basic Motor Vehicle Repairs at the Roadside

Overview

This standard is about conducting basic repairs on vehicles at the roadside.

Performance Criteria

You must be able to:

1. identify and show a working understanding of electrical systems & circuits, engine, transmission, steering, fuel, suspension, brakes, cooling systems and exhaust
2. demonstrate the ability to repair identified faults within the system
3. select the correct method of repair from the appropriate manual or other media
4. perform a re-test to ensure the repair is successful
5. use safe working practices when dealing with test equipment and tools
6. take prompt and effective corrective actions to resolve any errors within the limits of your workplace responsibilities

Knowledge and Understanding

You need to know and understand:

1. basic system features and operation including fundamentals of electrical systems & circuits, engine, transmission, steering, fuel, suspension, brakes, cooling systems and exhaust
2. how to recognise the repair procedure for the appropriate fault within the system
3. the vehicle repair manual or other media to determine the correct method
4. the correct use of test equipment
5. the correct use of workshop tools
6. the procedures for reporting problems
7. the health and safety requirements relevant to repair procedures