**RAFGSA - WINCH DRIVER TRAINING**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**No member is to undertake safety-critical tasks unsupervised before being certified competent by an authorised instructor.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Preparation and Maintenance** | **Instructor**  **Signature** | **Instructor**  **Name** | **Date** | **Notes** |
| RAFGSA Winch Manual |  |  |  |  |
| Winch Daily Inspection |  |  |  |  |
| Tractor Daily Inspection |  |  |  |  |
| Tractor Driving |  |  |  |  |
| Winch Set-up |  |  |  |  |
| Winch Start & Warm-up |  |  |  |  |
| Use of Radio |  |  |  |  |
| Use of Stop Light |  |  |  |  |
| Winch Put Away |  |  |  |  |
| Logbook Completion |  |  |  |  |
| Winch Refuel |  |  |  |  |
| Tractor Refuel |  |  |  |  |
| **Launching** | **Instructor**  **Signature** | **Instructor**  **Name** | **Date** | **Notes** |
| Instruction in Technique |  |  |  |  |
| Competent to Launch Under Supervision |  |  |  |  |
| Competent |  |  |  |  |
| **Emergencies** | **Instructor**  **Signature** | **Instructor**  **Name** | **Date** | **Notes** |
| STOP Signal Received |  |  |  |  |
| Glider Wing Drop |  |  |  |  |
| Cable Break |  |  |  |  |
| Glider Over-runs Cable |  |  |  |  |
| Glider Enters Cloud |  |  |  |  |
| Glider Unable to Release |  |  |  |  |
| Cable Repair |  |  |  |  |

**The above-named member has completed all relevant training and is authorised to perform the duties of a Winch Driver.**

**Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Instructor Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_**

(Please also complete the member's *Ground Training and Qualification Record*)

**WINCH DRIVER TRAINING – GUIDANCE NOTES**

**Full Driving Licence**

* Manual car licence (no automatic transmission restriction).
* Prerequisite for driving tractor.
* Without this qualification, member may drive winch but not tractor.

**RAFGSA Winch Manual**

* Read & understand.
* Discuss key points.

**Winch Daily Inspection**

* See Winch Manual.
* Ensure paperwork completed.

**Winch prime mover inspection**

* How to open bonnet.
* **Fuel:** at least half full. **Oil:** sufficient on dipstick. **Coolant:** top up if required. **Tyres:** correctly inflated. **Wheels:** bolts secure. **General condition of vehicle:** checked, free of FOD.
* Location of fluids / compressor.
* Remove drip trays before moving.
* Cold start: turn key against spring for glow plug. Start button on right-hand side of console.

**Winch prime mover Driving**

* Appropriate speed for towing winch.
* Reversing.
* Hand throttle: easier for maintaining constant speed over undulating terrain.
* Stopping engine: Pull stop lever. Hold out until engine completely stopped. Then push lever in and switch off key.

**Winch Set-up**

* Positioning. Angle accurately towards launch point.
* See Winch Manual for further details.
* Bus light signal & radio check.

**Winch Start & Warm-up**

* See Winch Manual.

**Use of Radio**

* **Controls:** on / off / vol, channel (usually Ch 2), push-to-talk switch.
* **Callsigns:** *“Winch”, “Launch Point”,* **“***(North / South)**Retrieve”.*
* Basic radio procedure: how to form a message. If in doubt: use plain English.
* Switch off radio and place on charge in workshop at end of day.

**Use of Stop Light**

* Indicates winch fault; winch unable to launch.
* Directional adjustment.
* After illuminating stop light, inform launch point of situation by radio.

**Winch Put Away**

* See Winch Manual.

**Logbook Completion**

* Number of winch launches & sign for master switch ‘OFF’.

**Winch Refuel**

* Use of LPG refuelling equipment; correct connection of LPG hose to winch tanks.
* Care of winch LPG filler dust covers. Fragile plastic – finger tight only.

**EMERGENCIES**

**STOP Signal Received**

* Immediate actions:
  + Throttle – IDLE.
  + Drive – NEUTRAL.
  + Drum Brake – stop cable.
* Subsequent actions:
  + Drum selector – NEUTRAL.
  + Assess situation:
    - Further launch attempt?
    - Retrieve vehicle to tow cable back to launch point? **Cable may start moving without warning – hands clear.**
    - Wind cable back in? **Speak to launch point before moving cable.**

**Glider Wing Drop**

* **First priority:** provide a stable platform for pilot to assess and respond to situation.
* **Once the ALL-OUT signal is received at the winch, the winch driver is to continue the launch unless he receives a stop signal / message from the launch point or he/ she can see that the launch has failed.**

**Cable Break**

* **Cable can whip a significant distance following a break under tension. Keep winch doors closed during launching and don’t allow bystanders to loiter in vicinity of winch.**
* Weak link failure only:
  + Cable visibly clear of glider: continue to wind in.
  + Cable not visibly clear of glider: immediately stop cable as above.
  + Try to observe strop landing area to assist recovery.
* Full cable break:
  + Cable visibly clear of glider: continue to wind in broken end.
  + Cable not visibly clear of glider: immediately stop cable as above.
  + Observe parachute landing area; if parachute / cable seen to fall across trees, road, airfield signs or buildings, alert launch point & retrieve drivers by radio.
* Low launch fail irrespective of cause: stop cable immediately to prevent glider fouling cable.

**Glider Over-runs Cable**

* Launch point should signal STOP.
* Proceed as above.

**Glider Enters Cloud**

* Continue to provide a stable platform for pilot to deal with situation.
* When release felt, reduce the power to idle to ensure separation from glider until parachute visible, and then recover as normal

**Glider Unable to Release**

* Immediate actions:
  + Throttle – IDLE.
  + Drum Brake – stop cable
  + Guillotine – operate.
  + Drive – NEUTRAL.
  + Drum selector – NEUTRAL.
* Subsequent actions:
  + Engine – OFF.
  + Cab – stay inside with doors closed until emergency over.
* Glider should open air brakes & fly steep turns above winch to generate slack in cable.

**Cable Repair**

* Practical demo.
* Ensure no-one moves cable while you’re working on it.