Norwegian Oil and Gas Handbook for use of manrider

Translated version

FOREWORD

This handbook has been developed with the participation of interested parties in the industry and in collaboration with the Norwegian Shipowners Association.

The handbook is owned by Norwegian Oil and Gas

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1 PURPOSE

The purpose of this work is to standardise the use and operation of manriders on the Norwegian continental shelf (NCS) in order to establish best practice.

Attention has been directed at formal requirements, training, communication, restrictions, signalling and so forth.

Verifying internal company procedures/checklists against this handbook is recommended.

The hand signals described in appendix A have been established as the industry standard, and thereby ensure uniform practice on the NCS.

2 SYSTEM FOR REPORTING, CLASSIFYING AND FOLLOW-UP

Observations identified in risk assessments, during work and in debriefings must be registered in the system for reporting, classifying and follow-up.

3 FORMAL REQUIREMENTS AND RECOMMENDED STANDARDS

Sections 27 and 69 of the facilities regulations on equipment for personnel transport and on lifting appliances and lifting gear respectively, with associated guidelines.

Sections 21 and 92 of the activities regulations on competence and on lifting operations respectively.

Norsok standards R-003N, R-002N and D-001.

DNVGL – OS – E101 can be used with regard to general requirements for manrider winches.

4 GENERAL DESCRIPTIONS

4.1 Responsibility

The person in charge of the area concerned has delegated responsibility for lifting operations in this area. The winch operator is responsible for operating the winch.

4.2 Use of manrider/manrider winch

Manrider use must be restricted, and must never be regarded as a routine operation. Personnel transport by manrider must use a dedicated manrider winch.

4.3 Parallel activities

No work must be done in a manrider at the same time as machinery or remotely controlled equipment is being operated in the area. Rotating machinery must be switched off and secured against accidental movement. Parallel activities at several levels must be avoided. For work in a moonpool, see section 5.5.

4.4 Securing equipment/preventing dropped objects

Necessary measures must be adopted to safeguard personnel against dropped objects when working in a manrider. Equipment/tools taken along must be safeguarded with approved security devices. See the handbook from Working Together for Safety on best practice for preventing dropped objects, which provides good tips.

4.5 Work in a moonpool

Work in a manrider under the drill floor (in a moonpool, etc) must only be done if communication can be maintained between drill floor, winch operator and the manrider user. An experienced signaller (flag person) should be used, who is familiar with the equipment and work processes. Checking steel wire tension for moonpool equipment, such as riser tension and podline/guideline, in advance is important. Activity on the drill floor must also be avoided.

5 LIFTING GEAR FOR PERSONNEL TRANSPORT BY MANRIDER

The manrider winch must certified for personnel transport. That also applies to such components as sheaves, hooks, shackles, steel wires and the manrider. Personnel must be attached with the aid of a shackle, bolts, nuts and lock pin.

Winch, steel wire, manrider/safety belt/block and other anti-fall equipment must be checked and tagged by the supplier and/or authorised competent person at least once every 12 months. Only an approved manrider must be used.

Winch, anti-fall equipment and manrider must be operated in accordance with internal procedures. These must correspond with the manufacturer’s instructions.

The counterweight effect of the steel wire must be taken into account when transporting personnel at a height.

6 PERSONNEL/COMMUNICATION/SIGNALLING

6.1 Experience/training

Only personnel with documented training (ref Norsok R-003N) can operate manrider winches. Winch operator, flag person and the manrider user must have practical experience of operating the manrider and be familiar with possible dangers. The signals used are STOP, LOWER and HEAVE, and these personnel must always be in visual contact (see section 6.4).

All communication must be conducted with confirmatory replies. When UHF radio is used, for example, A calls up B, B replies, A gives the order and B confirms.

6.2 Voluntary participation

Activities which involve the use of personnel in a manrider must be planned, risk assessed and based on voluntary participation.

6.3 Pre-job checks

Winch operator, flag person and manrider user must discuss the operation in advance (pre-job conversation or safe job analysis – SJA) in order to determine the best work method.

The winch operator will

- conduct a buddy check of the manrider and its fastening (correct use of safety equipment) in accordance with the manufacturer's instructions
- ensure that tools used by the manrider user are secured by approved methods.

6.4 Requirements for continuous monitoring

The winch operator will:

- stand by the winch controls as long as a person is in the manrider
- operate only one winch
- maintain continuous visual contact with the manrider user, either personally or via the flag person, and maintain good communication
- halt the lifting operation on the STOP signal and/or if doubts exist about the safety of an operation.

The winch operator and flag person must not do other work while manrider operations are under way.

6.5 Communication and signalling

Radio and batteries are checked before starting, and radio communication must be tested before personnel are lifted/lowered by the winch. A radio with headset is recommended. The radio channel to be used must be agreed in advance.

Radio communication must be established between the manrider user and the winch operator before operation of the manrider begins. However, radio should not be the only channel of communication used to convey signals.

If a flag person is used, they must be in radio communication and visual contact with both winch operator and manrider user.

All messages given over the radio must be confirmed by the recipient.

If radio contact is interrupted, or if interference occurs on the channel being used, the winch must be halted immediately until contact with the manrider user has been restored.

The winch operator must not heave or lower without having received an order to do so from the manrider user. HEAVE and LOWER require continuous signals. The hand signals described in appendix A must be used.

6.6 Wire spooling

The winch operator must ensure controlled spooling of the wire in order to avoid it slackening on the drum (a flag person or camera must be used when the operator cannot see the drum). The operator themself must ensure controlled spooling on winches which lack a spooling device and slack wire function.

6.7 Crushing/collision hazards

Care must be taken during personnel transport to ensure that the manrider user does not get crushed and stays clear of obstacles and existing wires.

7 WEATHER, WIND AND HEAVE RESTRICTIONS

A procedure must be developed which specifies restrictions on using the manrider winch and manrider with respect to wind, weather and rig motion.

This procedure should include planning the job on the basis of the weather window and the time taken to do the relevant job in relation to wind, weather and rig motion.

If the manrider winch is to be used on or close to heave compensation equipment, the heave motion and period of the rig/vessel must be taken into account.

Heave restrictions must be defined on the basis of frequency, wave height, motion of the unit and the winch's properties.

As a minimum, it must be possible to operate the winch at the same speed as the rig/vessel's motion (applies to both fixed and compensated equipment).

8 NOTIFICATION

The person in charge with delegated responsibility for lifting operations in their area must approve all use of manrider winch and manrider, and ensure that other personnel working in the area are notified.

A sign saying "manrider in use" must be hung up in the driller's cabin, for example, where it is clearly visible to personnel in the area.

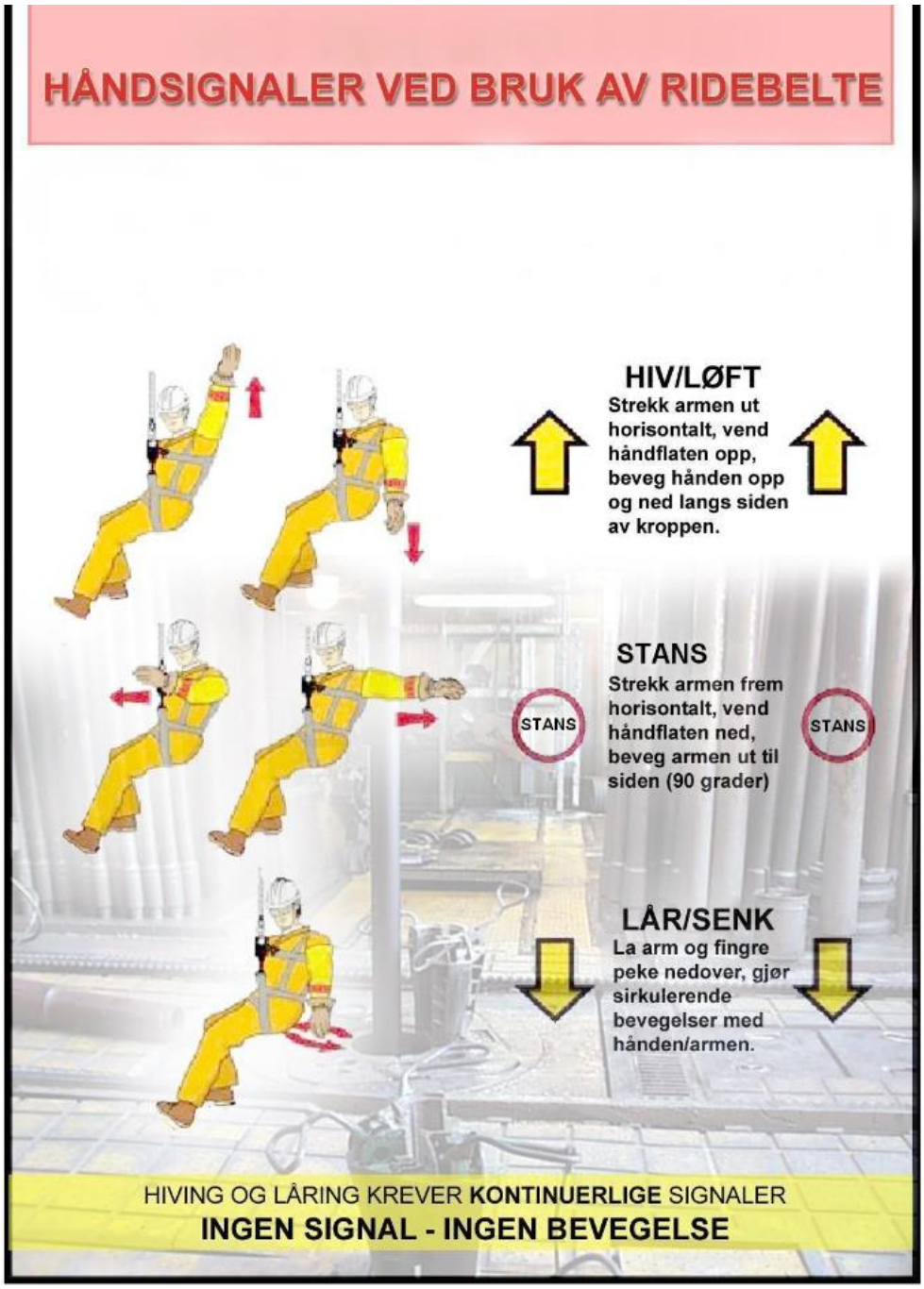
The company's notification routines must be observed when working over the open sea.

9 PRELIMINARY CHECK OF LIFTING EQUIPMENT

Maintenance routines and pre-checks must comply with the manufacturer's instructions. The following points must be dealt with if they are not already included in the manufacturer's checklist.

- Winch, wire and manrider must be checked for possible faults before use. The harness must be clean, undamaged and labelled with its ID number.
- A shackle in the current year's colour must be used, along with a lock pin between manrider and swivel.
- Secure tools in accordance with the handbook from Working Together for Safety on best practice for preventing dropped objects, which provides good tips.
- Carry out a function test on the winch. Test the emergency stop. Check emergency heaving and lowering. Check the brake.
- Carry out a visual check of winch components for damage, leaks, etc.
- Check carefully that the wire is spooled correctly onto the drum so that it does not build up unevenly. See section 6.6. This will avoid uncontrolled movements affecting the person suspended in the harness.
- Should an emergency occur, the manrider user must be immediately lowered or raised to a safe area.
- Training for rescue and emergency response must be carried out before the operation begins.
- Emergencies must be handled in accordance with local instructions on the facility.

Appendix A. Hand signals when using a manrider



Key:
HEAVE/LIFT: Stretch the arm out horizontally, turn the hand palm-up and move the hand up and down alongside the body.
STOP: Extend the arm forward horizontally, turn the hand palm-down and swing the arm 90 degrees out to the side.
LOWER: Point downwards with arm and fingers, making circling motions with hand/arm.
HEAVING AND LOWERING REQUIRE CONTINUOUS SIGNALS
NO SIGNAL - NO MOVEMENT