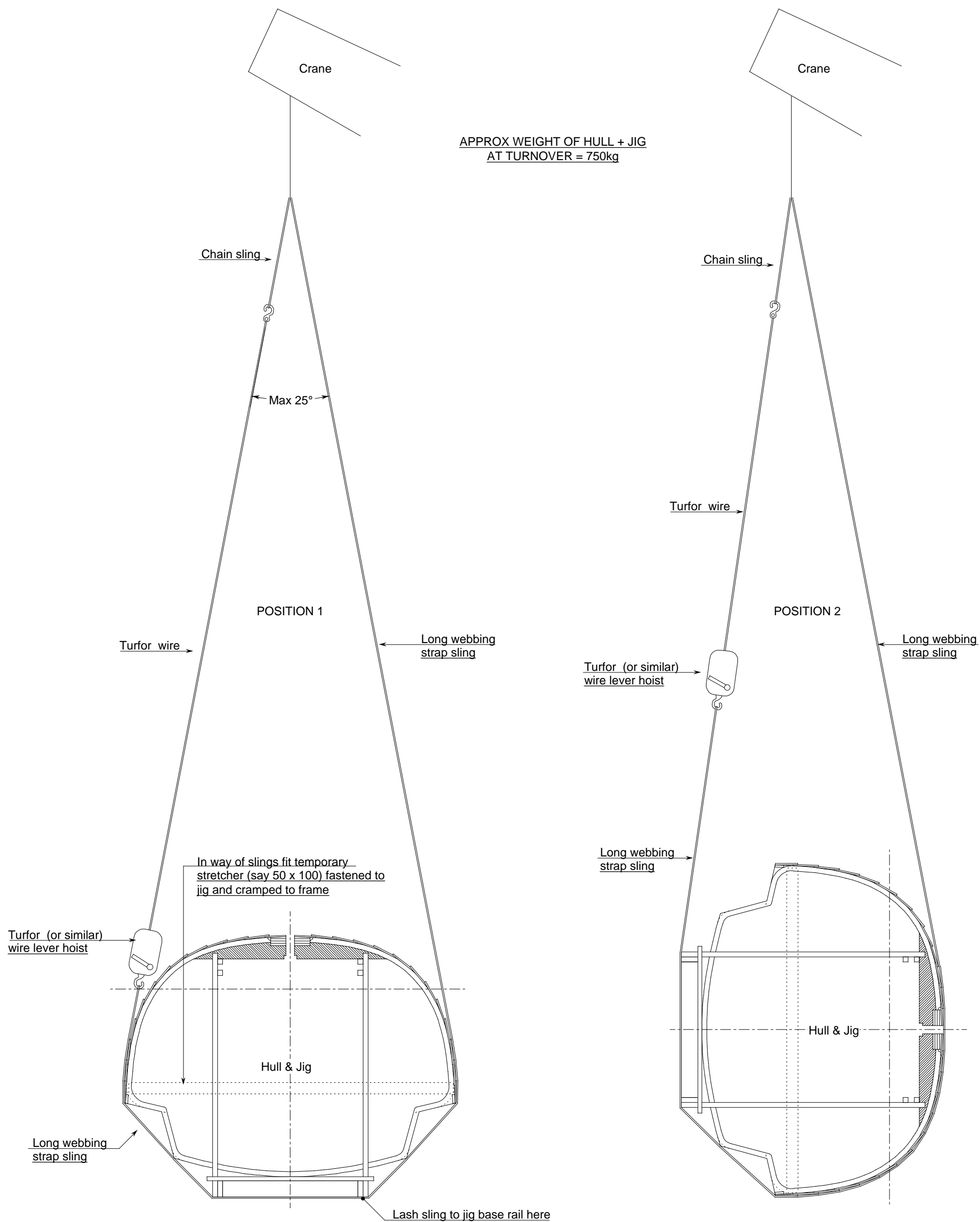


APPROX WEIGHT OF HULL + JIG
AT TURNOVER = 750kg



BASICS OF TURNING THE BOAT

Show this drawing to the crane company well before they come on site so that they know what is required, are happy with what is proposed and can bring all the right gear. If your crane company are not happy with what is proposed or seem uncertain about how it is to be done then do not proceed. Make sure that you are insured for all aspects of the lift - damage to the boat for its full value and liability to other parties. Your crane company can usually provide insurance and recommend suitable third party values. Make sure that you and your helpers fully understand the lifting and turning process. If you are going to be in charge, make sure that you agree proper hand signals with the crane driver and your helpers. Proceed slowly and methodically in your own time and don't start until you are certain that everything is how it should be.

You will need at least five adult helpers if possible - preferably reasonably strong and definitely level-headed. Attach two long ropes to the bow and two to the stern. These will be used to steady the boat while she is being lifted and turned. It is best if each rope is taken to a good stout post driven in the ground, or a tree if one happens to be handy. Taking a turn round the post or tree will make it much easier for the helper on the rope to keep control, especially if it is a bit windy - even quite light breezes will catch the boat and start it swinging. Depending on the conditions you may find that you only need to use one or two of these ropes, or that one or more can be tied to a tree rather than held all the time. But best be prepared. This sort of activity always attracts onlookers - keep them well away. Do not proceed if there are stray people wandering about, children running around etc.

Position the slings fore-&-aft at approx -1700 and -5400. On these two frames fit a temporary cross bar in the jig, running across the boat just below the shelf, fixed to the jig posts and cramped to the frames. These are to provide additional athwartships stiffness in way of the slings. Make sure that the slings are webbing strops at least 150mm wide and of sufficient length that, together with the chain slings on the crane hook, they make an included angle no greater than 25°, preferably 22.5° or less.

To turn the vessel in the slings as shown a Turfor wire lever winch or similar positive device will need to be introduced into each set of slings, such that the length of one sling can be reduced by at least 3500mm, preferably more. The combined weight of the vessel and the jig should be about 750kg - so the Turfor will need a safe working load of at least this - but say 1000kg - as during the turning process there is the possibility that one set of slings may be called upon to take most of the load. Electrically operated Turfors are available (to hire) and these get over the problem of operating the Turfor lever up in the air as the boat is turned.

Once the slings are in place, the crane should bring them gently taut, but take no weight. Adjust the slings fore-&-aft so that, at the deckedge and coachroof, the slings are clear of the frames not on them - otherwise the coachroof sections of the frames will be damaged. Then place extra protection between the hull and the slings at the deckedge and anywhere else where the slings take a sharp turn. Lash the long slings (the slings without the Turfor in them) to the base rail of the jig so that the slings cannot slip as the boat is turned. Make sure there is nothing loose in the boat and that the boat and jig are still firmly together. The boat (together with the jig) is now lifted as shown in Position 1.


The Turfors are then operated to shorten the slings on one side so that the boat starts to turn. As the boat turns, the crane can adjust the lift so that some of the weight still rests on lightly the ground. Have some tarpaulins and several old mattresses or similar on the ground for the hull to rest on and roll on. Keep shortening the Turfors and adjusting the crane lift so that the boat gently rolls around in the long slings, with some weight on the ground and some in the slings. Be careful that the long slings do not become loose as then the boat can suddenly take a roll and impose too much weight on everything, or cause you to lose control.

You will reach a point probably somewhere just before Position 2 where the boat wants to start rolling over on her own - without having to operate the Turfors. At this point the crane should jib out so that the weight of the boat is really taken in the long slings (though there can still be some weight on the ground). Using a combination of jib and hoist/lower the boat can then roll gently over in the long slings with the Turfor side becoming slack. She may go the last part of the way with a bit of a rush (depending on how smooth the combination of jib and hoist can be), but providing the boat is always resting lightly on the ground, with tarpaulins and mattresses in place no harm should come.

If something does go wrong and the boat starts to roll too fast, don't attempt to try and stop her by getting in the way - and make sure your helpers know this. Provided she is in contact with the ground she will most likely come to little or no harm - but she could easily crush a person. So Stay Clear!

General Notes:

- All dimensions are in millimetres unless otherwise noted.
- The Zero Point is the intersection of the Datum Water Line (dwl) with the stemface.
- Positions are measured fwd and aft (marked "-") of the Zero Point.
- Heights are measured above and below (marked "-") the dwl.
- Offsets are measured each side of the fore-&-aft centreline (marked "L" or c/line).
- Waterlines are designated "wl" followed by their height.
- Buttocks are designated "b" followed by their offset.
- Diagonals are designated "d" followed by their start height on the centreline and their angle to it.
- Offsets on diagonals are measured down the angle of the diagonal.
- Offsets are to inside of skin unless noted otherwise.

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