ANNEX 1 - MMIA STEEL PRELOADING SURVEY – RUST AND PHYSICAL (MECHANICAL) CONDITION CLAUSES

When describing steel cargo condition in Reports and on Mate's Receipts, surveyors must use the **bold text clauses** which are listed below. Surveyors may use more than one surface-condition clause and/or mechanical damage clause to describe the damage observed.

NOTE: The words inside the brackets are only to assist the surveyor's understanding of the bold **text** clauses to be used and are **not** a part of the clauses.

Surface Condition Clauses	Mechanical Damage Clauses
1. Covered with snow (Surface covered with snow or ice.) **2. Galvanising affected by white oxidation marks** (Zinc coating losing lustre and etched with white-coloured oxidation marks.) **3. Galvanising affected by white rust** (Zinc coating heavily oxidised and covered in voluminous white coloured rust.) **4. Galvanising dull** (Zinc coating losing lustre as a result of early oxidation.) **5. Grease spots & oil patches apparent** (Surface stained with grease & oil spots.) **6. Partly rust stained** (Fine powdery rust covering less than 75% of the surface.) **7. Partly rusty** (Brown to heavy deep brown rust covering less than 75% of the surface.) **8. Rust on edges** (Brown to heavy deep brown rust confined to edges.)	**1. Bent, flanges and webs distorted.** (A straight structural section has been bent causing both flanges and webs to be distorted.) **2. Bundle pieces bent along entire length. Affects about ___ in number pieces.** (A number of straight plates, rods, pipes or other small scantling pieces in a bundle are bent along their entire length.) **3. Bundle pieces projecting at ends. About __ in number pieces bent.** (Some plates, rods, pipes or other small scantling pieces in a bundle are projecting beyond most others resulting in bent ends for a certain number.) **4. Concrete coating (hairline cracked / chipped / broken) at ___ location.** (The concrete weight coating on a pipe has hairline cracks or is chipped or broken at the noted location.) **5. Dented at __ in number positions at ___ location.** (A pipe or other hollow section is dented in a number of positions at a particular location causing a reduction in internal dimensions.)

9. Rust spots apparent
(Localised very slight penetration of rust through mill scale.)

10. Rust spotting
(Localised penetration of rust through mill scale.)

11. Rust stained
(Fine powdery rust over the whole surface, light tan to light brown in colour.)

12. Rust with pitting
(Brown to heavy deep brown rust which, when removed, reveals pitting.)

13. Rusty
(Brown to heavy deep brown rust which, when removed, reveals uneven & dull surface.)

14. Stained to __ % extent by an unidentifiable __ coloured powder
(Surface coated to extent indicated with unidentifiable powder of the colour indicated.)

15. Streaky rust indicates previous contact with water
(Surface has rust streaks indicating that water has previously dripped down it.)

16. Surface areas reacting to silver nitrate solution tests
(Silver nitrate tests indicate surface has been in contact with salt water or other chlorides.)

17. Wet before shipment
(Water visible on surface or dripping out of bundles.)

18. Packing + surface-condition clause
(Cargo packing/cover surface condition is as described by the selected clause(s).)

6. Edges (dented / buckled) at __ location. Affects __ in number [windings / plates].
(The edges of a hot-rolled steel sheeting coil or plate bundle at a particular location have been dented or buckled over a number of windings or plates by handling equipment.)

7. Edges scored / gouged at __ location. Affects __ in number [windings / plates].
(The edges of a hot-rolled steel sheeting coil or plate bundle at noted location are deeply scored over a number of windings or plates.)

8. Edges [waved / distorted / bent upwards] at __ location.
(The edges of a steel plate are waved, distorted or bent upwards at noted location.)

9. Flange bent in number positions at __ location.
(The flange of a structural section is bent in a number of positions at the noted location.)

10. Interlocking grooves [bent / dented] at __ in number positions at __ location.
(The interlocking grooves of a sheet pile are bent or dented in a number of positions at noted location.)

11. Machined surfaces [scored / nicked / indented] to a depth in excess of number mm.
(The smooth machined surface – such as bevelled ends or flanges of a pipe – is scored, nicked or indented in excess of noted depth in millimetres.)

12. Packing [torn open / punctured] in __ number positions at __ location. Visible cargo is [insert surface-condition and/or mechanical-damage clauses].
(Packing is torn open or punctured in a number of positions at noted location(s) to reveal the surface condition of and / or mechanical damage to cargo underneath.)

	13. Packing edges dented by handling gear at __ location. Packing edges at noted location have been dented by handling equipment. **14. Protective coating [chafed / scored / broken / missing] at __ location.** **(**The protective coating on a pipe, sheet pile or other product is chafed, scored, broken or missing at noted location.) **15. Strapped insufficiently with __ number strapping bands [loose / broken / missing].** (A hot-rolled steel sheeting coil or a bundle of plates, rods, pipes or other small scantling pieces is insufficiently strapped due to the noted number of loose, broken or missing strapping bands.) **16. Windings at __ location telescoped up to about __ number mm.** (The windings of a steel sheeting coil have moved in the direction of the coil axis up to noted number of millimetres.)

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