IRP C.101 — CHASSIS – SAFETY AND INSPECTION PROCEDURES COMPETENCIES

ADEQUATE COMPETENCE TO INDEPENDENTLY APPLY IANA IRP C.101 CHASSIS – SAFETY AND INSPECTION PROCEDURES IS DEMONSTRATED BY A CHASSIS MECHANIC WHO KNOWS THE FOLLOWING:

	COMPETENCY	SOURCE/REFERENCE
1.	OSHA or specific workplace requirements will dictate proper personal protection equipment. Proper personal protection equipment can include safety glasses, hearing protection, gloves and/or hardhats.	C.101, Section 1
2.	Any work involving exposure to, or use of, hazardous materials, requires mechanics to be trained and to follow procedures outlined in safety data sheets related to the material.	C.101, Section 1
3.	A mechanic working on a chassis that is coupled to a power unit, with the driver present, MUST ensure that he/she has the driver's full attention and makes eye contact with the driver when speaking. The driver MUST remain fully aware of the mechanic's presence, at all times, and must avoid distractions — e.g., mobile phone or any other electronic device.	C.101, Section 1
4.	Level 0 securement — The chassis is secured with its parking brakes.	C.101, Section 2
5.	Level 0-C securement — The chassis is coupled to a tractor and secured only with the parking brakes.	C.101, Section 2
6.	Level 1 securement — The chassis is secured with wheel chocks that prevent forward and rearward movement.	C.101, Section 2
7.	Level 1-C securement — The chassis is connected to a tractor and secured with wheel chocks that prevent forward and rearward movement.	C.101, Section 2
8.	Level 2 securement — Work zone protection barrier is positioned at the front of the chassis, near the kingpin and under the front bolster. The chassis is secured with wheel chocks and chassis weight is on the landing gear, the axles and tires.	C.101, Section 2
9.	Level 3 securement — Work zone protection barrier is positioned at the front of the chassis, near the kingpin and under the front bolster. The chassis is supported by the landing gear, and stands that are specifically designed and rated for the task, are placed under the axles.	C.101, Section 2
10.	Level 4 securement — Work zone protection barrier is positioned at the front of the chassis, near the kingpin and under the front bolster. The front of the chassis is supported by the landing gear, or stands specifically designed and rated for the task, placed under the frame. The rear of the chassis is supported by the axles and tires, or stands specifically designed and rated for the task.	C.101, Section 2
11.	Type of work that can be performed with securement level 0 or 0L: • outside walk-around inspection • repair that can be completed without getting under the chassis. For example, lights and electrical, gladhand, integral lock, landing gear or mud flap.	C.101, Section 2

COMPETENCY	SOURCE/REFERENCE
12. Type of work that can be performed with securement level 0-C or 0-CL, provided the engine is shut off and all parking brakes are set: • outside walk-around inspection • repair that can be completed without getting under the chassis For example, lights and electrical, gladhand, integral lock, landing gear or mud flap.	C.101, Section 4
13. Type of work that can be performed with securement level 1-C or 1-CL, provided the engine is shut off and all parking brakes are set: • outside walk-around inspection • repair that can be completed without getting under the chassis For example, lights and electrical, gladhand, integral lock, landing gear or mud flap. • inspections under the chassis • repairs that take less than 30 minutes	C.101, Section 2
14. Type of work that can be performed with securement level 1 or 1L: • outside walk-around inspection • repair that can be completed without getting under the chassis For example, lights and electrical, gladhand, integral lock, landing gear, or mud flap. • inspections under the chassis	C.101, Section 2
15. Type of work that can be performed with securement level 2 or 2L: • outside walk-around inspection • repair that can be completed without getting under the chassis For example, lights and electrical, gladhand, integral lock, landing gear or mud flap. • inspections under the chassis. • repair work that does NOT require wheel removal or lifting of the chassis	C.101, Section 2
16. Type of work that can be performed with securement level 3 or 3L: • outside walk-around inspection • repair that can be completed without getting under the chassis. For example, lights and electrical, gladhand, integral lock, landing gear, or mud flap. • inspections under the chassis • repair work that does NOT require wheel removal or lifting of the chassis • wheel removal	C.101, Section 2

COMPETENCY	SOURCE/REFERENCE
17. Type of work that can be performed with securement level 4 or 4L: • outside walk-around inspection • repair that can be completed without getting under the chassis For example, lights and electrical, gladhand, integral lock, landing gear, or mud flap. • inspections under the chassis • repair work that does NOT require wheel removal or lifting of the chassis • wheel removal • lifting of the chassis for suspension or frame repair.	C.101, Section 2
18. For minor work or inspections to be performed on a single chassis, work zone barriers should be placed as such: • work truck at front of chassis • work zone barriers at both rear corners	C.101, Section 4
19. For minor work or inspections to be performed with chassis in a single row, work zone barriers should be placed as such: • work truck parked directly in front of chassis being worked on • work zone barrier at front of truck • 1 work zone barrier in the center rear of row of chassis	C.101, Section 4
20. For minor work or inspections to be performed with chassis back to back with another row of chassis, work zone barriers should be placed as such: • work truck parked directly in front of chassis being worked on • work zone barrier placed at the front of the truck • work zone barrier should be placed at head of trailer on row of chassis directly behind the chassis being worked on	C.101, Section 4
21. For major work to be performed with chassis back to back with another row of chassis, work zone barriers should be placed as such: • work truck should be parked directly in front of the chassis being worked on • work zone barriers should be placed at both the front and rear of the work truck • work zone barriers should also be placed on chassis directly behind the chassis being worked on, as well as the chassis on either side of the chassis being worked on.	C.101, Section 4
22. FMCSA requires every IEP to systematically inspect, repair and maintain intermodal equipment. The purpose of systematic inspection and repair is to ensure that the intermodal chassis is in safe and proper operating condition. These requirements are contained in 49 CFR §390.40.	C.101, Section 4
23. In order to meet FMCSA annual inspection criteria, chassis must be free from any inoperative brake.	C.101, Section 4
24. In order to meet FMCSA annual inspection criteria, chassis must be free from any missing brake.	C.101, Section 4
25. In order to meet FMCSA annual inspection criteria, chassis must be free from any broken or missing mechanical braking component, such as, shoes, linings, pads, springs, anchor pins, spiders, cam rollers, push-rods, brake chamber mounting bolts, loose chambers, spider or camshaft support brackets.	C.101, Section 4

COMPETENCY	SOURCE/REFERENCE
26. In order to meet FMCSA annual inspection criteria, chassis must be free from: • any brake lining or pad that is not firmly attached to the shoe • any lining or pad that is saturated with oil or grease • any lining thickness of any drum brake shoe that is less than 1/4" at the center of the shoe • any lining thickness of any disc brake pad that is less than 1/8"	C.101, Section 4
27. In order to meet FMCSA annual inspection criteria, chassis must be free from: • any brake drum that has a crack that opens upon brake application • any portion of a brake drum or rotor is missing, or in danger of falling away	C.101, Section 4
28. In order to meet FMCSA annual inspection criteria, chassis must be free from: • any audible air leak at a brake chamber • the stroke of 1 brake that is 1/4" or more past its stroke limit • the stroke of 2 brakes that are past the stroke limit by less than 1/4" Note: Measure stroke with 100 psi as described in IANA IRP C.807	C.101, Section 4
29. In order to meet FMCSA annual inspection criteria, chassis must be free from any defect in the parking brake system that prevents it from applying normally.	C.101, Section 4
30. In order to meet FMCSA annual inspection criteria, chassis must be free from any defect in the brake hose system, such as: • damage that extends through the outer reinforcement ply • a brake hose that swells when pressure is applied • a brake hose that has an audible air leak • 2 brake hoses that are improperly joined • a brake hose that is cracked, broken or crimped	C.101, Section 4
31. In order to meet FMCSA annual inspection criteria, chassis must be free from any defects in the brake tubing system, such as: • tubing that has any audible air leak • brake tubing that is cracked, damaged by heat or is crimped	C.101, Section 4
32. In order to meet FMCSA annual inspection criteria, all chassis lighting must operate.	C.101, Section 4
33. In order to meet FMCSA annual inspection criteria, chassis must be free from any defects in the container securement devices. Tiedown bolsters, locking pins, clevis, clamp or hook must be free from any cracks, and must not be broken, loose or missing.	C.101, Section 4
34. In order to meet FMCSA annual inspection criteria, chassis must be free from any U-bolt, spring hanger, or axle positioning part that is cracked, broken, loose or missing, and is causing an axle to shift from its normal position.	C.101, Section 4
35. In order to meet FMCSA annual inspection criteria, chassis must be free from any leaf spring that has two or more, broken or missing leaves.	C.101, Section 4
36. In order to meet FMCSA annual inspection criteria, chassis must be free from any leaf spring that has a broken main leaf.	C.101, Section 4
37. In order to meet FMCSA annual inspection criteria, chassis must be free from any leaf spring that has a leaf out of place that could contact a tire, rim, brake drum or the frame.	C.101, Section 4

COMPETENCY	SOURCE/REFERENCE
38. In order to meet FMCSA annual inspection criteria, chassis must be free from any torque rod, or its means of attachment to the frame or axle, that is cracked, loose, broken or missing (does not apply to a loose bushing).	C.101, Section 4
39. In order to meet FMCSA annual inspection criteria, chassis must be free from any main frame rail defects, such as: • frame or frame member is cracked, broken, loose, or sagging • any frame fastener is loose or missing • any tire or wheel is contacting the frame • the locking pin of a suspension slider is missing or not engaged	C.101, Section 4
40. In order to meet FMCSA annual inspection criteria, chassis must be free from: • any tire that is overloaded, flat or has an audible leak • any tire that has body ply or belt material exposed through the tread or sidewall, • any tire has tread or sidewall separation • any tire has a cut that exposes ply or belt material • any tire is marked “Not for highway use” • any tire has less than 2/32" of tread at any point on a major tread groove • any tire or wheel is contacting the frame or another tire	C.101, Section 4
41. In order to meet FMCSA annual inspection criteria, chassis must be free from: • any rim side ring or lock ring is bent, broken, cracked, improperly seated, sprung or mismatched • any wheel or rim that is cracked or broken, or has elongated bolt holes • any wheel fastener is loose, missing, broken, cracked, stripped or otherwise ineffective • any disc wheel has a crack in the weld attaching the disc to the rim • any spoke wheel has a crack in the weld attaching the mounting adapter to the rim	C.101, Section 4

IRP C.101 — CHASSIS – SAFETY AND INSPECTION PROCEDURES TASK LIST

ADEQUATE COMPETENCE TO INDEPENDENTLY APPLY IANA IRP C.101 CHASSIS – SAFETY AND INSPECTION PROCEDURES IS DEMONSTRATED BY A CHASSIS MECHANIC, UPON INDEPENDENT AND SUCCESSFUL COMPLETION OF THE FOLLOWING TASKS:

TASK	
1.	Proper use of personal protection equipment for type of work being performed.
2.	Proper securement level for type of work being performed. Demonstrate 5 times.
3.	Proper work zone barrier placement. Demonstrate 5 times.
4.	Proper PM inspection. Demonstrate 5 times.