

HEAVY EQUIPMENT CHECKLIST

This checklist is to provide information on what the judges are looking for with your project. Some items on this list may not apply to your project as this is a general checklist for the class.

NOTE: Jobs and component replacement in the examples do not have to be performed but do need an explanation of what was done to confirm item was in good working order and within specifications.

Fluid Check, Fill Points, & Filters

- i. Where to properly check and fill fluids. Such as fill caps, plugs, grease points, dipsticks, sight glasses, etc.
- ii. Where are the filters, what are they filtering and what kind of filter is it?
- iii. How much fluid the component takes and what type and/or weight is being used.
Examples of components are: Engine, transmission, radiator, chain case, drive motor, hydraulic system, a/c system, DEF system etc.

Engine & Engine Components

- i. Was anything done to the engine? What was done and how was the job performed?
Examples are: Rebuilding, servicing, component replacement, etc.
- ii. Did you apply diagnostic software to the engine? Did you check and/or test for anything?
Examples are: Equipment brand specific laptop/computer, compression tests, fuel pressure, injector readings, etc.
- iii. What are some specifications you can tell us about the engine? Examples are: Brand, size, horsepower etc.

Hydraulic System & Components

- i. Was anything done to the hydraulic system? What was done and how was the job performed? Examples are: Component rebuilding or replacement, servicing, leak detection, adjustments etc.
- ii. Did you run any pressure tests or adjust pressures? How did you perform those tasks? Were the tests within specifications? Examples are: Main flow, auxiliary pressure, hydrostatic and drive pressure adjustments, etc.
- iii. What are some specifications you can tell us about the hydraulic system? Examples are: Pump brands, capacities, flow charts, etc.

Undercarriage & Components

- i. Was anything done to the undercarriage? What was done and how was the job performed? Examples are: Component replacement, servicing, tire or track replacement, component and drive adjustments, etc.
- ii. Did you check for wear on the undercarriage? How and on what components? Were the parts within specifications? Examples are: Track tension, sprockets, rollers, idlers, rubber components, etc.
- iii. What are some specifications you can tell us about the undercarriage? Examples are: Component size, wear specifications, etc.

Cab/Operating Station

- i. Was anything done to the cab/operating station? What was done and how was the job performed?
- ii. What type of operating system do you have? How does that system work? Examples are: Electronic and/or mechanical controls, display screens, adjustments, etc.
- iii. Was anything done to the a/c or heater system? Can you describe the components and how it works?

Electrical System

- i. Was anything done to the electrical system? What was done and how was the job performed?
- ii. What electrical components did you check and how did you check them? Were they within specifications? Examples are: Battery, alternator, controllers, computers, etc.
- iii. Can you describe the specific controllers or computers your machine has? Do you know what voltages are being used with different components

Work Order/Job Description

- i. Do you have a work order or sales ticket describing what initially needed to be done to the machine or what the machine was brought into check? Did you find anything else wrong with the machine during your check over? What is the plan for this machine once repairs are completed?