**Start-Up and Shut Down Procedures: Hydraulic Excavators**

Operator/Inspector \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time\_\_\_\_\_\_\_\_\_\_

Serial Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Machine Hours \_\_\_\_\_\_\_\_\_\_ Experience (years) \_\_\_\_\_\_\_\_\_

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| --- | --- | --- |
| **Was procedure step completed properly?** | 🗹 | Evaluator Comments |
|  |  |  |
| ***Starting the Machine*** |  |  |
| Perform walk around inspection |  |  |
| Mount the machine using 3-point contact |  |  |
| Turn the battery disconnect switch to ON |  |  |
| Ensure circuit breaker reset button remains depressed |  |  |
| Adjust seat and mirrors and fasten seat belt |  |  |
| Move hydraulic lockout control to LOCKED position |  |  |
| Move the joysticks to HOLD position |  |  |
| Make sure all personnel are clear of machine and sound horn |  |  |
| Use ether start aid switch if necessary |  |  |
| Turn the key start switch to ON |  |  |
| Observe monitoring system self-test and add fluids if necessary |  |  |
| Ensure that “intake Air Heater On’ is not shown on the message display |  |  |
| Turn engine speed dial to “medium” position |  |  |
| Turn the key start switch to START and crank engine |  |  |
| **M *Machine Warm-Up*** |  |  |
| Allow engine to warm-up  |  |  |
| Engage and disengage attachment controls to help speed warm-up of hydraulic components |  |  |
| Turn engine speed dial to medium. Run engine for 5 min |  |  |
| Continuously move joystick from BUCKET DUMP to HOLD |  |  |
| Cycle all controls to allow warm oil to circulate |  |  |
| Check gauges, indicators and action lights frequently |  |  |
| ***Moving the Machine*** |  |  |
| Make sure area is clear |  |  |
| Turn the engine speed dial to the operating range |  |  |
| Move hydraulic lockout control to UNLOCKED position |  |  |
| Raise boom and select desired travel speed |  |  |
| Ensure position of upper structure and undercarriage is known. Driver sprockets should be at the rear of the machine |  |  |
| Turn engine speed dial to desired speed |  |  |
| Push both travel levers forward at the same time to travel forward |  |  |
| ***Machine Shut Down*** |  |  |
| Park machine on smooth, level area |  |  |
| Reduce engine speed and lower all hydraulic implements |  |  |
| Move hydraulic lockout control into LOCKED position |  |  |
| Run engine at low idle for 5 minutes and turn key start switch to OFF |  |  |
| Dismount using 3-point contact |  |  |
| Conduct post-operation walk around inspection  |  |  |

Worker Competent Yes or No (circle one) Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
\*Supervisor/Trainer has demonstrated how task should be done and discussed all known safety hazards that may affect the worker and provided the worker with all the information that is necessary to do the job safely and correctly.