



MN-PV-CIS-016

Internal Bundle Cleaner Competency Manual

**MN-PV-CIS-016 – Internal Bundle Cleaner Competency Manual
Rev 2**

Updated: January 10, 2023

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Table of Contents

<u>Table of Contents</u>	1
<u>Training Expectations Letter</u>	2
<u>Aknowledgement</u>	3
<u>Objective</u>	4
<u>General Overview</u>	6
<u>Equipment Overview</u>	8
<u>Mainenance</u>	23
<u>Troubleshoot IBC</u>	24
<u>Operate IBC Procedure</u>	24
<u>Technical Quiz</u>	26
<u>Practical Assessment</u>	27



Training Expectation Letter

It is required that this document is completed prior to the Employee starting training on an Internal Bundle Cleaner (IBC). This document will serve as formal record that all parties have reviewed and understand the expectations for training on the Internal Bundle Cleaner (IBC).

Trainee Name:

Date of Discussion:

Expectations of Supervisor/Leader

- Ensuring trainee has scheduled time for training.
- Ensure trainee has reviewed and understand the technical documentation
- Ensure trainee has been provided a demonstration on equipment operation
- Verify field competency sign offs once completed
- Ensure trainee is working with a competent mentor until they are competent themselves
- Provide support for the assessor, mentor, trainer and trainee whenever possible.
- Ensure training documentation is sent to CEDA Training Department

Expectations of Trainer, Mentor, assessor

- Must be qualified in the position for which he/she is training.
- Educate and support trainee with technical review package.
- Ensure trainee has been provided a demonstration on equipment operation
- Review trainee's technical knowledge and verify acceptable understanding
- Educate and support trainee with field tasks identified in the competency check sheet
- Verify trainee has the ability to perform tasks identified in the competency check sheet
- Communicate to Supervisor that the technical review and field competency is complete

Expectations of Trainee

- Complete all prerequisites outlined within the training program.
- Understand the training process outlined in this document.
- Understanding systems and spending time in the field.
- Ensure all lessons and tasks are signed off by the appropriate personnel as indicated on the training documents.
- Inform Supervisor/Leader on progress of training through face to face meetings.
- Will utilize all the materials provided to ensure a comprehensive training program is followed.
- Provide feedback on the training process and any updates that are required to the training material.
- Inform Supervisor/Leader of any training barriers that may exist during the training process.

Training Expectation Acceptance Agreement

I, _____ understand the expectations of me as a trainee as outlined in this document

(Operator Name)

Operator\Trainee

Name

Signature

Date (MM\DD\YY)

Supervisor/Leader

Name

Signature

Date (MM\DD\YY)



Acknowledgement

This manual has been developed using information and knowledge obtained from manufacturer's documentation and input from experienced Operators. Additionally, this manual has been validated by numerous Subject Matter Experts at CEDA. We welcome any comments or suggestions pertaining to this manual and its contents.

Many thanks to those who have demonstrated a clear dedication to CEDA and our values by participating in the creation of this program.





Objective

Welcome to CEDA Internal Bundle Cleaner Training

This program is designed to provide you with the training necessary to carry out your job in a manner that safeguards yourself, those around you and our environment. Upon Completion of this Module you will be able to:

- 16.01 Review Internal Bundle Cleaner (IBC) Operations
- 16.02 Operate Internal Bundle Cleaner

Employee(s) will demonstrate knowledge & skill in the proper application of equipment through practical application.

Instructions

All material must be completed in the order presented to ensure that prerequisites are met.

Employees will demonstrate knowledge and skill in the proper application of equipment through practical demonstration and application.

NOTE: All forms and procedures included are those required by CEDA. Work must be performed in accordance with these standards. On Client work sites, there may be additional standards and modified work procedures that will also have to be met.

Description: This is a knowledge and practical skill that requires written material to be reviewed along with the completion of an on-the-job demonstration prior to the test being written.

Whenever possible, the on-the-job demonstration should be completed at a job site or the shop under controlled conditions.

Arrange a time with your Mentor/Supervisor/Trainer to complete the On-the-Job Demonstration, where you will observe the proper operation of the Steamer unit and its components.

Assessment of Competency: Successful completion of this competency requires:

- A score of 100% on the written examination.
- A successful demonstration by trainee requiring a sign-off from Trainer.



Prerequisites

- CEDA Orientation
- CEDA Introduction to High Pressure Water Blasting
- Specific work location Orientation

Below is a list of the learning resources that are included and others you must obtain the most recent version from your Supervisor.

- Operate Internal Bundle Cleaner Procedure
- Inside Bundle Cleaner 5IBCB2 Operation and Maintenance Manual
- CEDA IBC Safe Work Procedure
- Gardner-Denver Pump Manuals Site specific documentation
- Job Hazard Analysis for the work
- CEDA FLHA
- Other CEDA procedures and practices that pertain to the job being completed

NOTE: All forms and procedures included are those required by CEDA. Work must be performed in accordance with these standards and can be found in CEDA Health, Safety and Environment Management System (HSEMS) or be requested from your Leader. On Client work sites, there may be additional standards and modified work procedures that will also have to be met.

Renewal Period

The entire Module must be redone after:

- Leaving the employ of CEDA for a 6-month period,
- Leaving the Internal Bundle Cleaning operation for a period of 6 months,
- As deemed required by CEDA.

General Overview

Federal & Provincial Legislation

All work must be completed in accordance with applicable Municipal, Provincial, & Federal Acts & Regulations, including but not limited to:

Transportation of Dangerous Goods (TDG)

- Vehicle must be DOT Approved and be equipped with appropriate safety devices
- DOT approved vehicles will have sticker on side of unit
- Operator must place appropriate placards on side of vehicle
- Operator must prepare bill of lading prior to transporting materials

The Workplaces Hazardous Materials Information System (WHMIS)

- All CEDA field employees working with or around equipment will have WHMIS and TDG training prior to starting work.

Occupational Health & Safety (OH&S)

Seat Belts

Anytime a vehicle (CEDA owned or personal) is being operated during business hours for business use, or on CEDA property, the occupants must be wearing seatbelts.



Personal Protective Equipment (PPE)

To operate the Internal Bundle Cleaner, employees must have and utilize the following personal protective equipment (PPE):

- CSA Certified Hard Hat with Face Shield
- CSA Certified Safety Boots (Boot Grips when required)
- Fire Retardant Coveralls
- Hearing Protection (plugs or muffs)
- Approved Gloves for the Site/Task
- Safety Glasses with Side Shields.
- Rain Gear as Required



Workplace Organization

CEDA's goal is to reduce waste (time, energy and materials) by maintaining an orderly and clean workplace, including our trucks and equipment. We ask that you take pride in the equipment you operate; treat it as if it were your own. A clean and organized vehicle/workspace is a safer vehicle/workspace. There are many ways to eliminate waste:

Allocation & Utilization of Resources: Have the right people and equipment in the right place, at the right time. Use equipment and resources on tasks and activities that are required and add value to our business.

Improve Productivity: Eliminate redundant or unnecessary steps/tasks without negative impact to the safety or quality of our products and services.

Use of Materials: Ensure equipment is stocked with required supplies (filter bags, duct tape etc.) before leaving for jobsite – replace the materials you have used during the shift to ensure that the next crew is adequately stocked. Use the correct materials in the quantities required to do the job safely & correctly.

Preventative Maintenance: Tools and equipment should be assessed as per the performance maintenance schedule to ensure safe operation. Regular maintenance will reduce costly breakdowns in the field.

There are steps we can take to improve our current state and move towards a more productive, organized and safe work environment. Improving workplace organization will reduce costs, improve morale and create a safer work environment. The following steps outline how best to achieve an organized workplace:

Sort, organize and eliminate unnecessary items from the workplace to eliminate clutter. Keep only essential items.

- Tools and equipment that are not utilized for day-to-day operations should be repurposed within the organization or discarded.
- Garbage or loose items should be removed or properly stored.

Prioritize tools, parts and materials based on usage and keep them in easily-accessible places.

- A place for everything and everything in its place.

Create storage areas that are easy to access and clearly laid out:

- Tools and equipment should be stored clean and ready for use.
- Storage areas and stored items should be properly identified using signage, labels or a visual outline.

Set clear standards for workplace organization:

- Hold yourself and others accountable for keeping the work areas clean and safe. Make workplace organization a standard work rule in your area.
- Clean general work areas and equipment after each shift.

- Put clean tools away in the proper place.
- Note any spills, leaks or other messes – clean and report if equipment requires maintenance
- Inspect the area(s) regularly and immediately record and correct any infractions. Handle deviations from work rules in a timely manner.
- Review processes and procedures regularly and adjust as required.

Equipment Overview

Internal Bundle Cleaner Background

What is an Internal Bundle Cleaner?

An internal bundle cleaner is a special device used to clean inside the tubes of large heat exchanger units or “bundles”. The internal bundle cleaner has five lances that are capable of efficiently cleaning multiple tubes during every cleaning stroke. Once the unit is properly positioned, only one operator is required to operate the machine while another technician operates the pump.

Exchanger bundles are generally cleaned during the shutdown at a plant. The bundle is extracted from the shell and placed onto a cleaning slab. The operator can safely clean the entire bundle from the secure confines of the cabin.

The internal bundle cleaner is not a mobile unit and must be rigged into position on the cleaning slab in preparation for the cleaning job.



Internal Bundle Cleaner

There are two internal bundle cleaners in use by CEDA; a 24 and a 34 foot model. The only difference between these units is the length of the rigid lance rails. All other major components remain the same.

How is Cleaning Performed?

General Principle

The device cleans the exchanger tubes by advancing and reversing rigid high pressure lances in and out of the tubes using a chain driven rail system. The high pressure water is provided by

a pump capable of delivering large volumes of water (up to 50 gallons per minute) at high pressure (up to 20,000 psi).

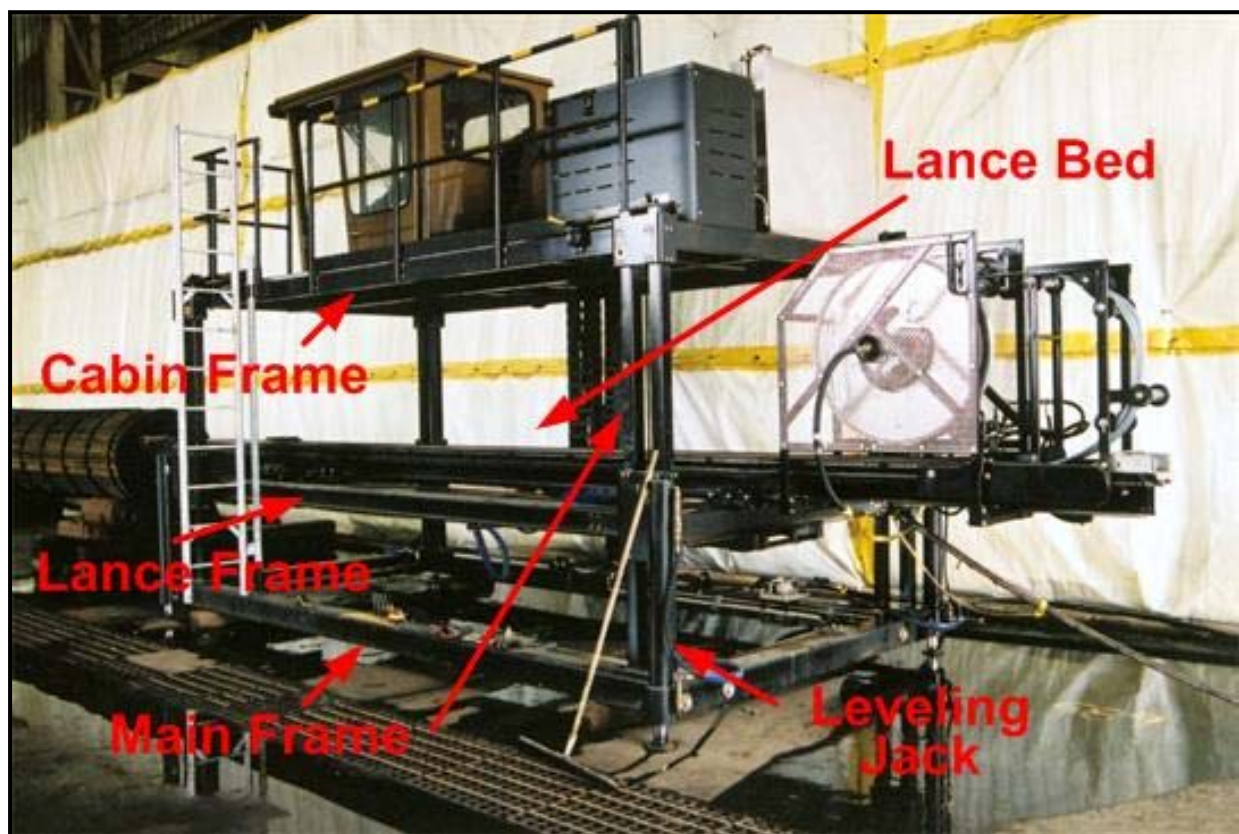
Nozzles at the ends of the rigid flexlances direct the spray inside the exchanger tubes. The choice of nozzle is important to ensure efficient cleaning.

Basic Components of the Internal Bundle Cleaner

The key components of the internal bundle cleaner will be described in the following section. Please refer to the corresponding operators' manual for more detail as required.

The internal bundle cleaner is comprised of the following components:

1. Main frame
2. Lance frame
3. Lance bed and spool
4. Cabin frame
5. Rollers
6. Operator Controls



1. Main Frame

The main frame consists of a frame with four columns along which the lance frame platform and cabin move. The columns are used to raise and lower the cabin frame. During transportation, the cabin frame is in the lowered position. During operation the cabin frame is in the raised position.

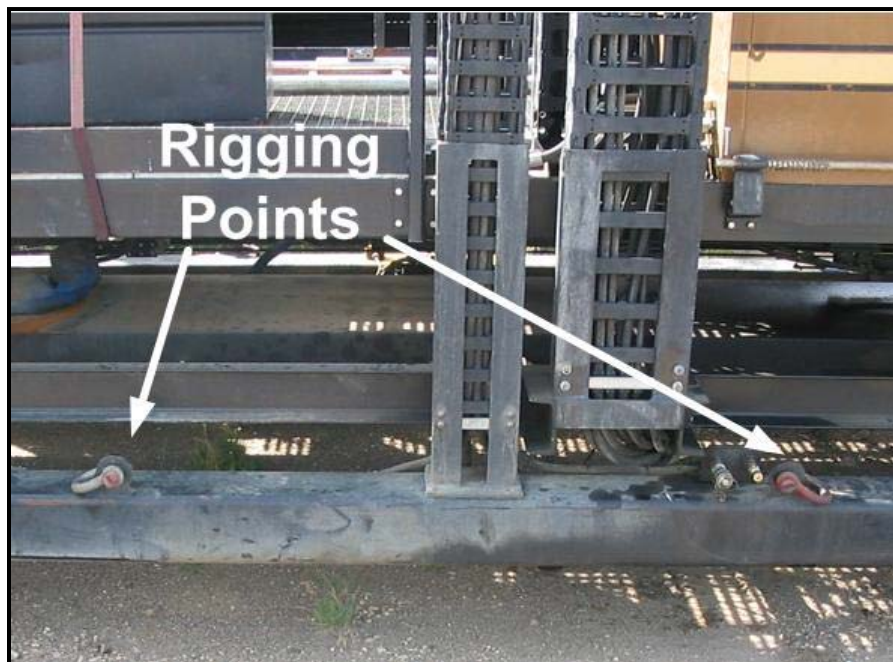


Internal Bundle Cleaner in Lowered Position



Internal Bundle Cleaner in Raised Position

The cabin is placed onto the wash pad with a crane. The riggers are usually provided by the plant site. The internal bundle cleaner has two rigging points on each side of the main frame that are used to lift the unit.



Rigging Points on Main Frame

The cabin frame is always raised and locked into the raised position before any cleaning job begins. The operator uses hydraulic controls from within the cab to raise the cabin frame into position. Once the unit has been raised into position, the cabin frame is secured to the top of each column using locking brackets located on the side of the frame.



Locking Bracket Used to Secure Cabin Frame in Raised Position



Plate Atop Main Frame Column that Receives Locking Bracket

The unit must be leveled before operation. There are four leveling jacks; one located at each column. Each jack is hydraulically operated by controls located on the main frame.



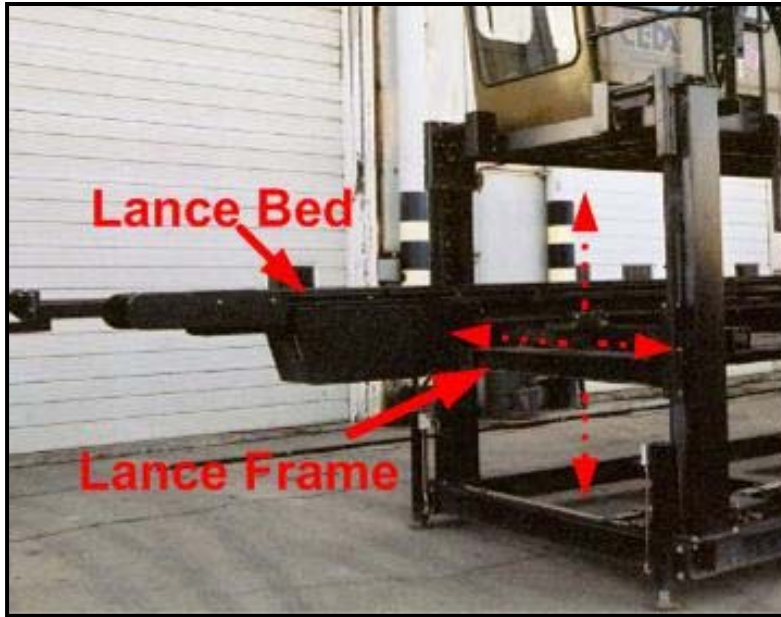
Leveling Jack used to Level Unit



Hydraulic Bank used to Adjust Leveling Jacks

2. Lance Frame

The lance frame is a platform that supports the lance bed and spool at the rear. The lance frame also allows the operator to move the lance bed in an up/down or side-to-side direction. The up/down and side-to-side movement allows the operator to advance to lance bed to the appropriate exchanger tubes.



Lance Frame. The dotted lines indicate the direction of travel for the lance bed.

The lance bed can also move forwards or backwards, but this range of motion is very limited. The operator can forward and reverse the lance bed when preparing to clean an exchanger or when repairs are required.

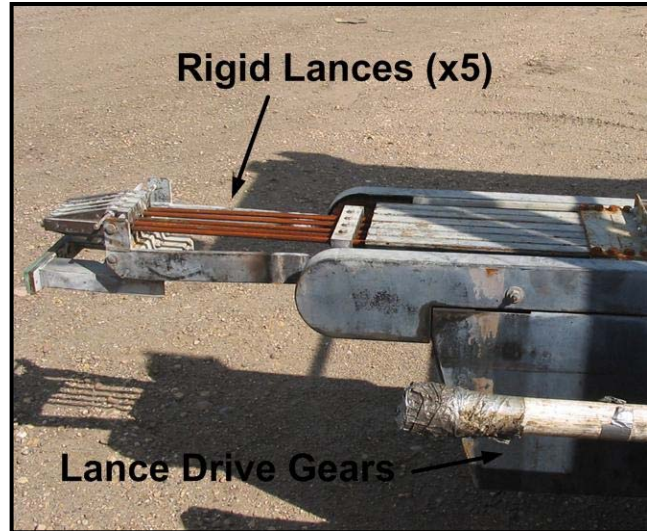


Hydraulic Cylinder for Forward Motion of Lance Bed

3. Lance Bed and Spool

The lance bed rests on the lance frame and contains the rigid high pressure lances. As mentioned earlier, there are two types of internal bundle cleaners; a 24 and a 34 foot style. These styles are determined by the length of the lance bed. Two styles are required because the exchanger bundles vary in length.

Beneath the lance bed at the front of the unit are the drive gears. They are enclosed in a metal shroud and are used to drive the chains that advance and reverse the rigid lances.



Rigid Lances on Lance Bed

The drive gears are located beneath the lance bed at the front of the unit.

Normally, the exchanger tubes are evenly spaced. However, the distance between tubes may vary from exchanger to exchanger. The tips of the lances can be adjusted to match the proper distances for each exchanger that is cleaned. This is called the “Pitch” adjustment.



Pitch Adjusting Nuts

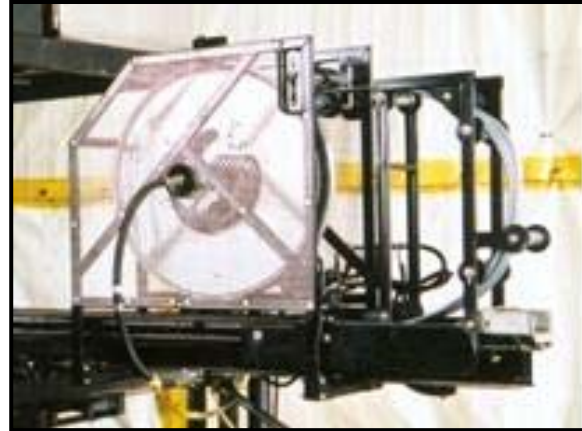


Lance Tips and Exchanger

Notice the consistent distance between the exchanger tubes.

The rear of the lance bed is where the spool can be located. The spool contains the flexible portion of the high pressure water line. As the lances enter the exchanger, the flexible portion of the lines unspools allowing the rigid lances to travel forward. As the rigid lances are reversed out of the exchanger, the spool automatically reels in the flexible lances, preventing them from becoming tangled.

A high pressure water lines is attached to a swivel on each side of the spool.



Spool (Rear of Lance Bed)

A series of guide wheels help ensure that the flexible lines do not become tangled.



Guide Wheels

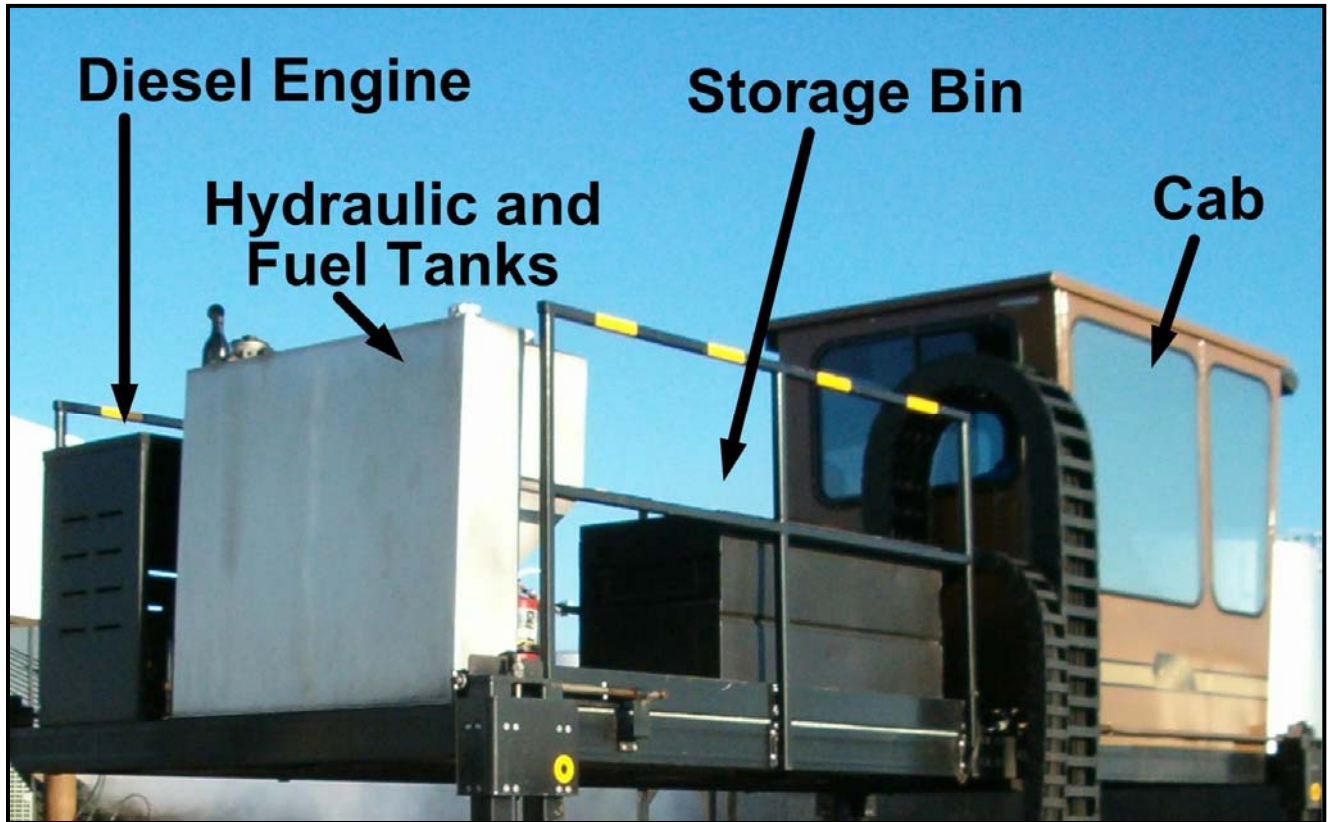
The spool is automatically chain driven by a hydraulic motor.



Chain Driven Spool

4. Cabin Frame

The cabin frame is upper most part of the unit and supports the cab, storage bin, diesel engine, fuel and hydraulic tanks.



Cabin Frame

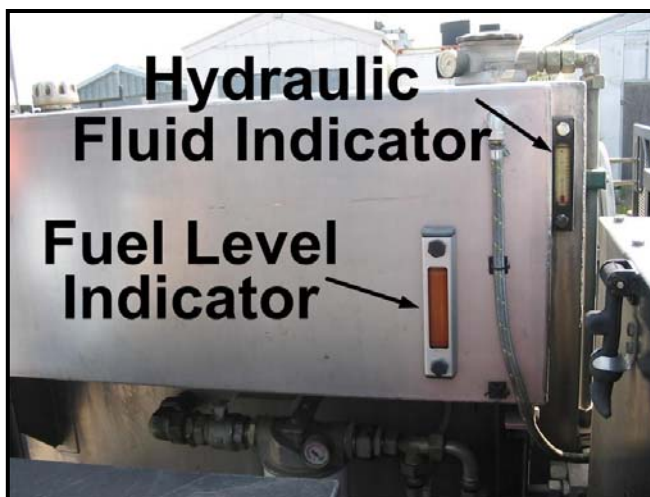
The diesel engine is used to power the hydraulics system, lights, heating and air conditioning systems.



Diesel Engine



The fuel and hydraulic fluid tanks are located at the rear of the cabin frame. The tanks are joined together to conserve space and each tank has a fluid level indicator.



Fuel and Hydraulic Storage Tanks

The hydraulic tank indicator also has a temperature indicator built into the fluid indicator.



Hydraulic Fluid Indicator

A gauge mounted above the hydraulic tank is used to determine the hydraulic filter function. If the dial is in the red area, the hydraulic filter should be changed.



Hydraulic Filter Gauge

From the cab the operator controls most functions of the internal bundle cleaner. The operator controls will be discussed in greater detail (refer to **6. Operator Controls**)

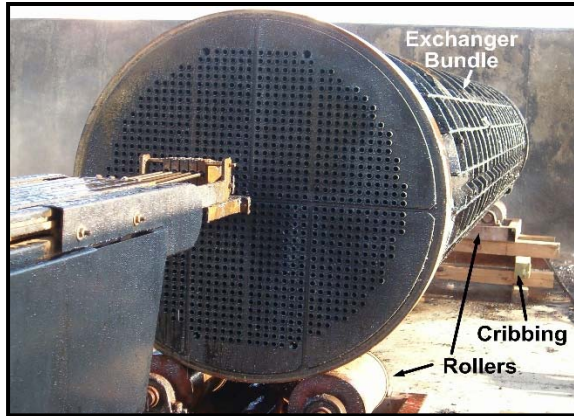


Cab

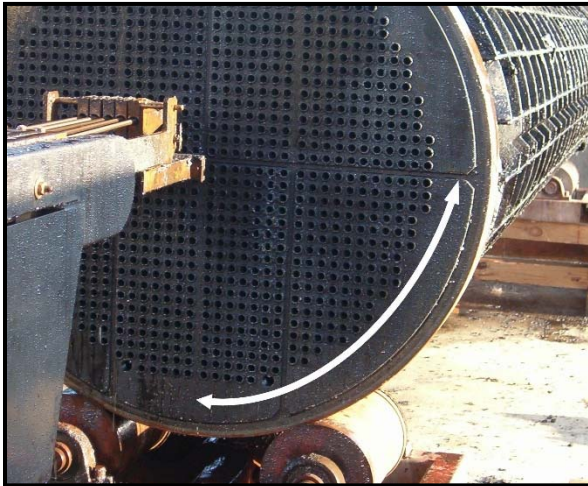
5. Rollers

The rollers are used to help the operator align the exchanger bundle tubes with the lance bed. In many cases, the rollers are placed on a raised support or “cribbing” to bring the bundle to the appropriate height.

If the exchanger tubes are not properly aligned with the lance bed, the operator cannot wash all five tubes because the lances will not advance if one or more lances are blocked. All nozzle tips must be on the same plane as the exchanger tubes in order for the internal bundle cleaner to properly function.



Exchanger Bundle, Cribbing and Rollers



Roller and Exchanger Bundle

Once the exchanger bundle has been placed on the rollers, the operator can rotate the entire exchanger from the cab and properly align the bundle tubes with the nozzle tips. The arrow indicates the rotation of the exchanger.



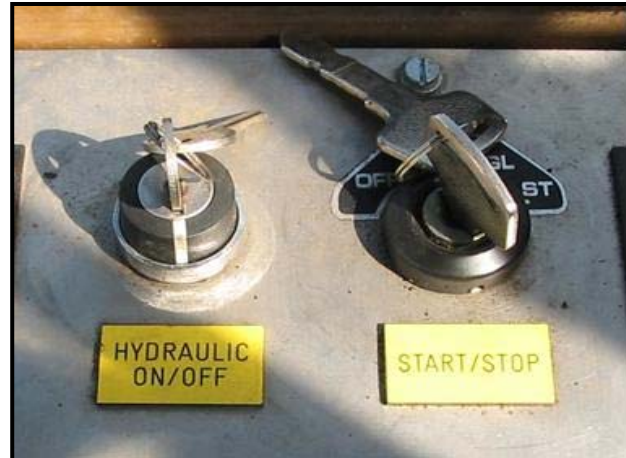
Hydraulic Connections for Rollers

The rollers are hydraulically operated and must be connected to the internal bundle cleaner using hydraulic lines. A special lever inside the cab allows the operator to control the roller and rotate the bundle.

6. Operator Controls

The operator can control nearly every function from within the confines of the cab. To the right of the operator are the hydraulic and engine switches. These controls can be locked out, preventing unauthorized operation.

The hydraulic system must be turned to the off position if the operator leaves the cab or any time repairs or adjustments are being made to the internal bundle cleaner.



Engine and Hydraulic Switches

Along the same panel as the hydraulic and engine switches are the air conditioning switches and fuse panel.



Air Conditioning Controls and Fuse Panel

Over the operators right shoulder (behind the seat) are the speed control valves. These valves control the speed of movement as the operator moves the lance bed up, down, left and right.



Speed Control Valves – Left, Right, Up and Down

Over the operators left shoulder (behind the seat) are more speed control valves. These valves control the speed of movement as the operator moves the lances in and out of the exchanger tubes.



Speed Control Valves – In and Out

To the left of the operator is the control for the dump valve.



Dump Valve Control

The main controls are located on either side of the operator as he or she is seated in the cab. The levers to the left of the seat allow the operator to control the in and out movement of the lances and lance bed. The levers to the right of the seat allow the operator to control the left, right, up and down motion of the lance frame. Also, the roller control is located to the right.

Note: The up/ down and left/right motion cannot be activated unless the flexlances have been completely removed from the exchanger.



Controls to the Left of the Operator



Controls to the Right of the Operator

General Internal Bundle Cleaner Process Summary

Once the internal bundle cleaner has been placed on the wash pad, the operator(s) can begin preparing the unit. The cabin frame is raised and locked into the highest position and the entire unit can be leveled. The rollers can also be properly positioned allowing the operator to quickly and efficiently clean the bundles.

Properly positioning the bundles is very important. If the bundles are not properly positioned, and the angle of entry is too great, the nozzles will wear prematurely and/or damage to tubes may result.

As the image to the right shows, the bundle must be positioned so that the rigid lances can travel to the end of the bundle without grinding against the inner walls of the tubes. If the bundle is not properly aligned, the rigid lances would grind against the inner wall and cause premature wear on the nozzles and even damage the tubes.

The left and right alignment is just as important as the up and down alignment. For example, if the rear of the bundle is too high or too low, the same damage might occur to the nozzles or tubes.



Bundle Alignment

The solid arrow indicates proper alignment. Dashed arrows indicate improper alignment.

The operator must determine the length of the bundle because the rigid lances should not extend beyond the tubes of a straight bundle or enter the curved section of a U-tube bundle. If the rigid lances are allowed to enter the curve of a U-Tube bundle, the lances may be lodged or nozzles may become damaged. A common method of determining the length of the bundle is to extend the lances above the exchanger tubes while a spotter signals to the operator once the end has been reached. A special stopper device can be fastened to the top of the lance bed.



Stopper Device

All necessary hydraulic lines and high pressure water hoses can be connected to the internal bundle cleaner. The high pressure water line from the pump must first be connected to the bypass line. A second line is used between the dump valve and the “T” connection below the spool.



Dump Valve



“T” Connection Below Spool

Many plant sites have special cleaning areas where a stopper wall prevents the spray from continuing beyond the heat exchanger. When a stopper wall is not present, a special screen must be used to redirect the spray.

As with any other high pressure water cleaning job the area must be flagged and tagged.



Stopper Wall

Maintain Internal Bundle Cleaner

As with any equipment used regularly, all internal bundle cleaning components must receive the appropriate preventative maintenance in order to properly operate.

It is important to identify the following components and perform the required maintenance for routine operation.

Part/Device	Required Maintenance	Frequency
Pumps	Preventative Maintenance	Every 250 hours
Nozzles	Replace	As required
Rigid Lances	Replace	As required
High Pressure Hoses	Replace	As required
Hose Feeder Chains	Adjust	As required
PTO	Adjust tension	As required
Internal Bundle Cleaner	Glycol through lines	Cold Weather Shut-Down



Troubleshoot Internal Bundle Cleaner

To efficiently operate the internal bundle cleaner, the operator must be aware of the common failures that might prevent smooth operation. The following is a list of common problems encountered.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION(S)
Loss of Cleaning Pressure	Cartridge in bypass leaking	Replace Cartridge
	Loose Connection	Check Connection
Leaking Swivel	Worn Seal	Replace seal
Travel Too Slow or Fast	Incorrect setting on speed valve	Adjust speed valve

Operate Internal Bundle Cleaner Procedure

ACTION	NOTES
1. OBTAIN permit, as required...	... CEDA supervisor or designate to obtain all permits.
2. REVIEW permit, toolbox talk, procedures, emergency meeting points and assembly areas with all personnel.	
3. POSITION high pressure pump and IBC.	
4. RIG hoses in safe manner.	
5. FLAG OFF work area with "DO NOT ENTER" flagging and post high pressure water blasting signs.	
6. CHECK all hoses and fittings for damage and proper pressure rating.	
7. INSTALL whip checks at each connection.	
8. FLUSH system with water.	
9. INSTALL high pressure nozzles.	
10. LEVEL IBC and line up with tubes.	
11. CHECK temperature of the exchanger.	



12. CLEAN exchanger...	<i>... at no time will the pressure exceed maximum allowable hose rating. ... shut down and repair or replace defective equipment as required. DO NOT attempt repairs when system is under pressure. ... if at any time the job becomes unsafe, shut down all equipment and call your supervisor immediately. ... upon completion of cleaning, customer representative must approve all work.</i>
13. CLEAN-UP work area and equipment.	
14. SIGN-OFF permits.	



Multiple Choice Questions (Technical Quiz)

Complete the following test, and have it graded by your assessor. If any questions are answered incorrectly, your assessor will explain what the correct answer is, and why it is correct. Once you understand the correct answer, both the assessor and students initials are required to indicate that mentoring or coaching has taken place.

Question	Assessor's Initials	Student's Initials
1. The internal bundle cleaner uses up to _____ lances to clean exchanger tubes. a. one b. three c. five d. None of the above		
2. At least two people are required to operate the internal bundle cleaner and pump. a. True b. False		
3. CEDA uses internal bundle cleaners: a. with a 24 foot lance bed, b. with a 34 foot lance bed, c. both a and b d. None of the above		
4. The cabin frame must be raised and locked into position before use. a. True b. False		
5. The operator can move the lance bed side-to-side, even when the rigid lances have been fully extended. a. True b. False		
6. The pitch is the distance: a. between the tip of the lances to the exchanger plate. b. between the lance tips. c. between the lance tips and the bottom of the exchanger. d. None of the above		
7. Rollers are used to help align the exchanger bundle tubes with the lance bed. a. True b. False		
8. If the angle of entry is too great, the nozzles may wear prematurely. a. True b. False		
9. The length of a bundle tube should be determined by the operator for bundle containing only U-Tubes. a. True b. False		
10. The hydraulic system must be turned to the off position: a. when the operator leaves the cab. b. when repairs or adjustments are required. c. both a and b d. None of the above		



Practical Assessment – Internal Bundle Cleaner

This form is to be filled out by the assessor as they observe the student successfully demonstrate these items in order to be deemed competent.

Assessment Check List

Section 1			
The following items must be identified and their purpose, inspection requirements, and preventative maintenance must be explained. Failure to successfully explain inspection and maintenance requirements does not constitute a FAIL, but will require a mentorship agreement to bring the employees level of knowledge to an acceptable level.			
ITEM		YES	NO
1	Main Frame - Leveling Jacks - Hydraulic Bank		
2	Lance Frame		
3	Lance Bed and Spool - Rigid Lances - Pitch Adjusting Nuts		
4	Cabin Frame - Diesel Engine - Hydraulic Tank and Indicator - Fuel Tank and Indicator - Cab		
5	Rollers		
6	Operator Controls		
Section 2			
The following tasks must be completed in the prescribed sequence. Any exceptions must be noted in the comments section with justification. Assessor will check YES column if the item was actioned satisfactorily, or circle the number in the NO column if it was not. If enough demerits are accumulated to warrant a fail, or employee performs an unsafe or dangerous action, the assessment may be terminated immediately. If necessary, all near-miss/incident reporting requirements must be met.			
<i>*Copies of the completed Daily Inspection, FLHA and Procedure must be attached to the assessment.</i>			
TASK		YES	NO



1	Obtain permit, as required.		
2	Review permit, toolbox talk, procedures, emergency meeting points and assembly areas with all personnel.		
3	Position high pressure pump and IBC.		
4	Rig hoses in safe manner.		
5	Flag off work area with "DO NOT ENTER" flagging and post high pressure water blasting signs.		
6	Check all hoses and fittings for damage and proper pressure rating.		
7	Install whip checks at each connection.		
8	Flush system with water.		
9	Install high pressure nozzles.		
10	Level IBC and line up with tubes.		
11	Check temperature of the exchanger.		
12	Clean exchanger.		
13	Clean-up work area and equipment.		
14	Sign-off permits.		
Comments:			
Section 3			
The following precautions must be observed at all times. Assessor will check YES column if the item was actioned satisfactorily or NO column if it was not. If the employee fails to adhere to any of these precautions at any time, it constitutes a fail and the assessment shall be terminated immediately. If necessary, all near-miss/incident reporting requirements must be met.			
PPE: Has all necessary PPE to perform task. PPE has been inspected and is in good condition. Proper PPE is worn at all times.		YES	NO
Backing: Operator- Proper spotter briefing and walk down of area with spotter before backing. window down, radio off, hearing protection removed. Confirmed		YES	NO



hands signals with spotter before backing for the first time. Sounds horn prior to backing, keeps spotter in mirror, follows spotters direction.		
Backing: Labourer- Proper spotter briefing and walk down of area with operator before backing. wears high visibility vest, confirms hand signals with operator before backing for the first time. Uses proper hand signals, does not walk backwards while spotting or repositioning, always facing unit while it is in motion.	YES	NO
Line of fire: Does not place themselves in the line of fire at any time. This includes standing off to the side when opening valves, removing caps, and disconnecting hoses. Does not place themselves directly in front of/behind unit while in motion. Uses whip checks on all connections	YES	NO
Communication: Has established and reviewed method of communication with co-workers to ensure equipment is operated safely and all hand signals are understood.	YES	NO
Paperwork: Properly complete or participate in the completion of any required paperwork. Have necessary paperwork completed prior to commencing a task.	YES	NO
If there are any items that are marked NO, it is a failure of the assessment	PASS	FAIL
Comments:		



Assessment Sign Off

All boxes must be completed before signing an employee competent.

- ☐ Expectation Letter Signed
- ☐ Minimum 100 hours of on the job training completed
- ☐ On the Job Practical Assessment Completed by an approved Assessor
- ☐ Has reviewed and understands the operator manuals
- ☐ Reviewed and understands Procedures and Safety Documentation
- ☐ Technical review and Knowledge Exam complete
- ☐ Training documentation sent to CEDA Training Department

Assessor

I, _____ have taken the below named employee through this Assessment, and he/she has successfully demonstrated competence in the areas identified.

Signature Date

Student

I, _____ have completed this competency, including the on-job demonstration, practical assessment and multiple-choice questions. I understand the information presented and agree to follow all of the rules and procedures set out by CEDA.

Signature Date



Revision Log

Revision Date	Section Affected	Changes Made
January 10, 2023	All	Updated Template, multiple changes throughout.



Training Change Request Form

Date: _____

Location: _____

Name: _____

Contact information: _____

Email/Phone number

Description

Please use the back of this sheet to make additional comments.

Section Name: _____

Page Number: _____

Description of Problem/ Suggested Resolution:
