

ARTICULATED DUMP TRUCKS



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The following cleaning/inspection guide has been segmented to facilitate the process. The segmentation is as follows:

- 1. The Cabin
- 2. Engine Housing & Front End
- 3. Engine Block & Belly Plates
- 4. Wheel Arches, Rims & Tyres
- 5. Articulated Pivot Point
- 6. Rear Chassis
- 7. Dump Tray
- 8. General

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1. The Cabin

Image 2:

The new style of Articulated Dump Truck cabin. Cabin door rubbers can be contaminated and are therefore an area of concern to AQIS. The electric engine cover is to be lifted, (red arrow), the rear radiator covers removed (blue arrow) and all handrails checked for open ends or drainage holes. On some models of Articulated Dump Trucks, the cabin can be hydraulically tilted, allowing access to the top of the engine block.



Image 3

Image 3:

The older style of Articulated Dump Truck cabin. Again, all cabin door rubbers (red arrow) may be of concern, the air-filter precleaner (blue arrow) removed for cleaning and inspection as well as cabin vent covers (aqua arrow). The rear non-affixed panels have already been removed in this illustration (green arrow).



Image 4:

The inside of the Articulated Dump Cabin. The rubber floor matting is to be removed (red arrow) as well as the non-affixed floorpan, allowing access to the engine (see later illustration). Remove air-filter cover (blue arrow) for cleaning and inspection.

Image 5:

Depending on the configuration, the internal door void (red arrow) may harbour contamination and be of interest to AQIS. Likewise door rubbers and air-conditioning vents have previously been found to be contaminated and therefore may be inspected.





Image 6:

Contamination has previously been found in some air-conditioning vents and therefore an area of interest to AQIS.



Image 7:

A close up of the air-vent cover. Remove the grill (red arrow) and check the cleanliness of the internal filter (pressurised air). The rubber cabin pedals (green arrow) have been removed for cleaning and inspection.



Image 8:

Behind all internal wall linings (red arrows) is to be cleaned and accessible at the time of inspection.



Image 9:

The internal hosing of all joystick control panels (red arrows) is to be cleaned and accessible at the time of inspection. Airconditioning vents (green arrow) are to be internally cleaned and accessible for inspection.

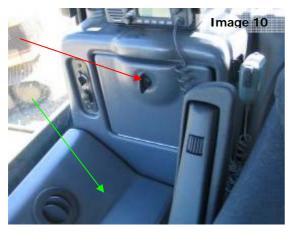


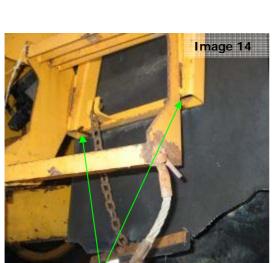
Image 10:

All storage compartments (red arrow) are to be internally cleaned as well as behind any internal wall panelling (green arrow).

Image 11:

Inside the cabin, the floorpan has been removed, allowing inspection access to the top of the engine block (red arrow). The blue arrow highlights where the rubber pedal covers have been removed for cleaning and inspection, while the green arrow highlights the rubber seat shroud, which must be cleaned both internally and externally. On some of the newer models the whole cabin can be hydraulically tilted sideways, allowing access to the topside of the engine block.





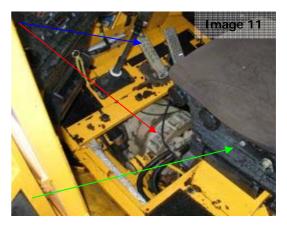


Image 12:

The non-affixed floorpan behind the seat has been removed, allowing cleaning and inspection access.

Image 13:

The air-filter pre-cleaner (red arrow) and airconditioning vent cover (blue arrow), require removal for cleaning and inspection.



Image 14:

The ladder leading to the cabin may have open-ended channels as those highlighted by the green arrows. Each footstep must be thoroughly cleaned, including the underside.

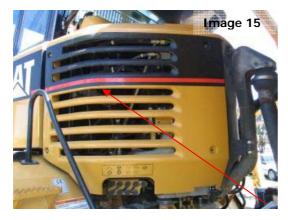


Image 15 & 16:

The non-affixed radiator cover panels, located behind the cabin. Both must be removed to allow access to the radiator and oil cooler fins, as well as the inside of the radiator shroud. All looming (green arrow) is to be checked for internal cleanliness.

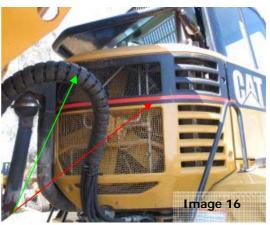




Image 17:

The radiator is not located behind the cabin on this older model, however the non-affixed covers have still been removed, allowing cleaning and inspection access.

2. Engine Housing & Front End

Image 18:

The sleek front end of the newer model Articulated Dump Trucks.

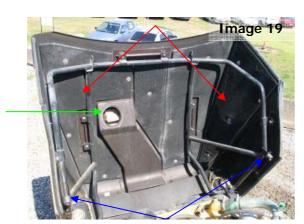




Image 19:

The fibreglass engine cover tilted up, allowing access to the top of the block. All insulation foam (red arrows) is to be verified clean and check all internal tubing (blue arrows) for open ends or drainage holes. If present these will require flushing to verify cleanliness. Also verify the air intake cover (green arrow).

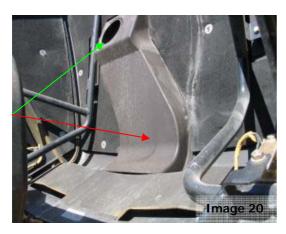


Image 21:

On some models, along the front drawbar is a towing pin. Check this front drawbar for any hollow channels (red arrows).

Image 20:

The air intake vent (red arrow) on the inside of the engine housing. The internal surfaces are to be verified clean.

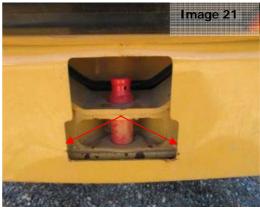




Image 23:

The front drawbar on the older models, as seen from the side. The red arrow highlights the access points to the hollow nose channels, which require flushing.

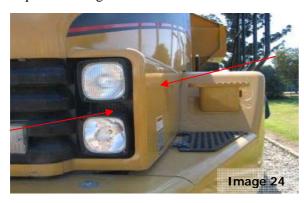


Image 25:

Highlights the recess found behind the light covers (green arrow), which has been found to harbour significant amounts of contamination.



Image 27:

All batteries are to be loosened from tie-down points for underside cleaning and inspection.

Image 22:

The older style engine cover with no internal insulation and numerous hollow, open-ended channels (red arrows). All require flushing to verify cleanliness.



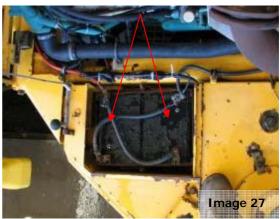
Image 24:

Check for cavities behind all lights that will require access for inspection if not sealed units.



Image 26:

On some of the older models, drainage holes like the one highlighted by the red arrow above the headlight, require flushing to verify cleanliness.



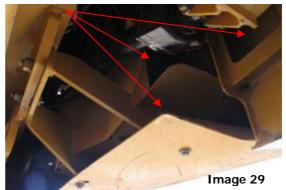
Images 28 & 29:

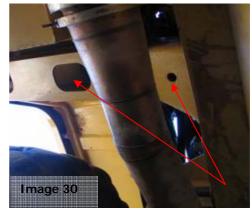
The underside of the front drawbar. On this model the area has no hollow channels, but rather numerous nooks and ledges that all require thorough cleaning and inspection.











Images 30 & 31:

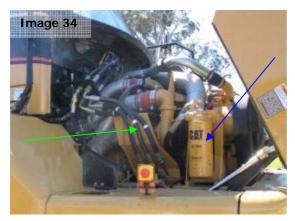
Check under the nose, just forward of the tyres for hollow sections like those highlighted is the red arrows, some requiring flushing to verify cleanliness.



Images 32 & 33:

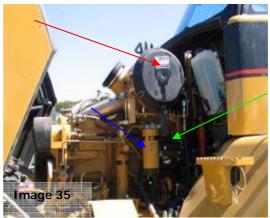
On older models, the drainage holes Green arrows) under the nose may not be as obvious as on the newer models, however these areas also require flushing to verify cleanliness.

3. Engine Block & Belly Plates



Images 34 & 35:

Both sides of the Dump Truck engine block. All hydraulic hoses (green arrows), oil filters (blue arrows) need to be thoroughly cleaned, as well as the side and front of the block and the air-filter (red arrow).





Images 36 & 37:

Both sides of the Dump Truck engine block. All hydraulic hoses (green arrows), oil and fuel filters (blue arrows) need to be thoroughly cleaned, as well as the side and front of the block.



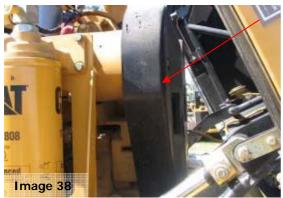


Image 39:

Check for recesses like the one highlighted by the green arrow, located at the side of the block in front of the cabin.

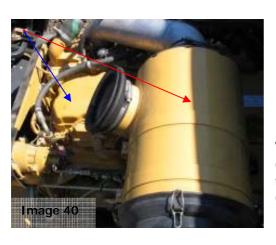


Image 41:

This small step at the side of the engine housing must be internally cleaned and inspected.



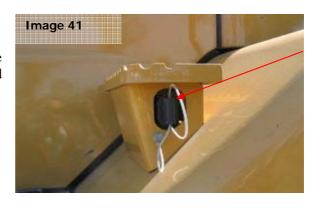
Image 38:

On the newer models a protective plastic shroud as highlighted by the red arrow covers the harmonic balancers. It must be removed for cleaning and inspection.



Image 40:

The air-filter must be removed from the housing (red arrow) and verified clean. Check along the topside of the block and between tappet covers (blue arrow).



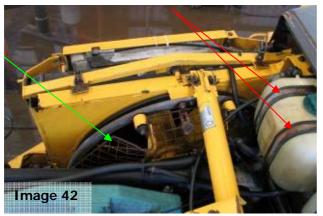


Image 42:

On older models, the radiator is located in front of the cabin. For cleaning and inspection, several non-affixed radiator cover panels have been removed. The shroud grill (green arrow) is still in place, preventing access into the bottom of the shroud. Loosen bands around tanks (red arrows) and flush.

Image 43:

The fins on both the radiator (red arrow) and oil cooler (blue arrow) must be flushed in the presence of the inspecting officer to verify cleanliness. On some models the oil cooler can be unbolted on one end and swung open on hinges to facilitate this access. The green arrow highlights the small recess between the radiator and oil cooler fins, which requires thorough inspection.



Image 44

Images 44 & 45:

The belly plates in place under the Dump Truck, and then released on their hinges.

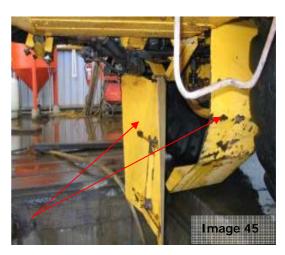




Image 47:

The side of the engine block, highlighting the lip along the side (red arrows), which can harbour contamination.



Image 49:

On some older models, foam insulation (green arrows) can be found around some of the hydraulic hoses. This must be internally cleaned and inspected.



Image 46:

The underside cross-members where the belly plates attach. These can be hollow structures, as seen above (red arrows) and require flushing to verify cleanliness.



Image 48:

The belly plates have been removed, exposing the underside of the engine block for cleaning and inspection. Check the topside of the engine mounts (red arrows) for cleanliness. The foam insulation (green arrow) is highlighted next.



Image 50:

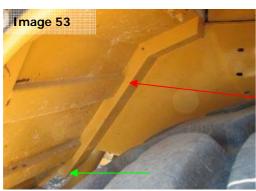
The topside of the differential (red arrows) must be thoroughly cleaned and inspected.

4. Wheel Arches, Rims & Tyres



Images 51 & 52:

The front wheel arches on the newer models. Check all underside channels (red arrows) for open ends, or drainage holes.





Images 53 & 54:

A closer view of the channels inside the front wheel arches. The channels highlighted by the red arrows have hollow opening at the bottom (green arrows) and require flushing to verify cleanliness.



Image 54

Images 55 & 56:

The wheel arches on the earlier models may have black protective shrouds (red arrows) on the inside, which can be removed to facilitate the access to the side of the engine, located under the cabin.



Image 57:

The wheel arches of the earlier models have a combination of hollow channels (red arrows) and ledges (green arrows).





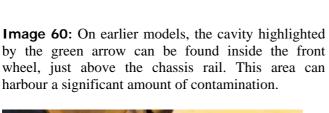
Image 58:

Highlighted by the red arrow is a small box section inside the wheel arch. Check for drainage holes underside or if only spot welded into place. If only-spot welded, the internal cleanliness will require verification.



Image 59:

All ledges inside the wheel rims (red arrows) are to be cleaned and verified.



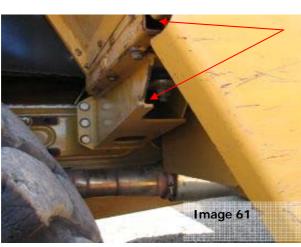




Image 61:

Examples of open and hollow sections (red arrows) located just in front the front tyre, below the wheel arch.

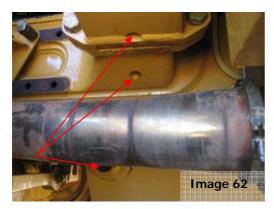


Image 62:

Examples of drainage holes found in the surrounding framework, under the wheel arches. All require flushing in the presence of the inspecting officer to verify cleanliness.



Image 63: An example of an acceptable tyre, which can be easily cleaned and inspected.



Image 64:

Imported tyres with cracks and splits like the ones illustrated must all be free of contamination and each verified at the time of inspection.

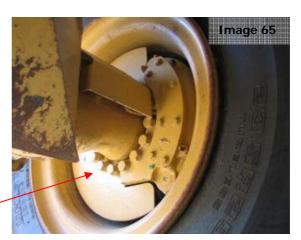


Image 65:

All non-affixed wheel rim covers (red arrow) are to be removed to facilitate the cleaning and inspection process.



Image 66:

Congested rims like the one illustrated may require flushing as well as inspection to verify cleanliness.

5. Articulated Pivot Point

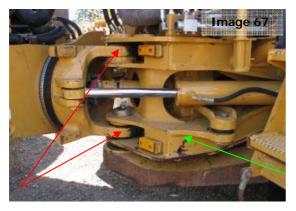


Image 67:

The articulated pivot point behind the cabin. All contaminated grease is to be removed from all pivot points (red arrows), while the green arrows highlight the drainage holes at the rear to the chassis which will be discussed later.

Image 68:

Another view of the articulated pivot point. All contaminated grease is to be removed from the pivots (red arrows), as well as the hydraulic hoses (green arrows). The blue arrow highlights the drainage holes at the rear of the chassis rails.

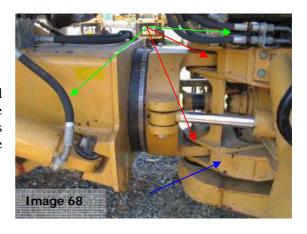


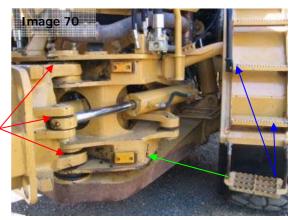
Image 69:

Image 69

The Universal joint leading back from the front of the Dump truck to the rear chassis. All contaminated grease must be removed from this area and the universal joint.



In this illustration, the cabin has been turned slightly to the left, making access for cleaning and inspection of the pivot point a little easier. The red arrows highlight the pivot points, the blue under the cabin foot steps and the green the chassis drainage holes.





Images 71 & 72:

The drainage holes (red arrows) at the rear of the chassis, near the pivot point. These hollow channels must be flushed in the presence of the inspecting officer in order to verify cleanliness.





Images 73 & 74:

Just behind the pivot point is the start of the rear chassis. Check for drainage holes like those illustrated (red arrows) and flush to verify internal cleanliness.



6. Rear Chassis

Image 75:

To enable cleaning and inspection of the rear chassis, the Dump Tray must be lifted (locking pins must be in place). All plastic conduit (red arrows) is to be flushed to verify internal cleanliness.



Image 76

Image 76:

The first universal joint (red arrow) on the rear chassis. All contaminated grease must be removed. Check that all ledges (blue arrows) and countersunk holes (green arrows) are free of contamination.



Box sections like the one illustrated are found at the front of the rear chassis. This one has a nonaffixed panel at the top, which allows access for cleaning and inspection.



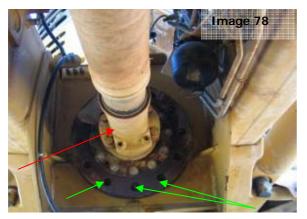


Image 78:

The other end of the universal joint, directly behind the pivot point. All grease and contamination must be removed from the universal (red arrow) and countersunk holes (green arrows).

Image 79:

The rear universal joint (red arrow) and chassis rails (blue arrows).



Image 79

Image 80:

On some models, a cross-member between the two rear chassis rails may be present. The red arrows highlight the access points to this hollow area which must be verified free of all contamination.



Some sections on the rear chassis may have hollow sections as highlighted by the red arrow and require flushing to verify cleanliness.



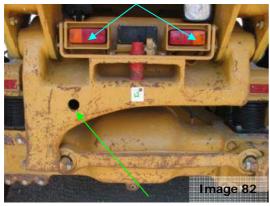


Image 82:

The rear end of the chassis. All light covers (aqua arrows) are to be removed and internally cleaned and inspected. Note the holes in the chassis (green arrow). These hollow cavities must be verified clean.



Image 83:

A closer view of the holes (green arrows) in the rear chassis. The internal of the chassis must be verified clean.



Image 84:

The bracket on the rear of the axel, highlighted by the red arrow is a hollow structure and can harbour a significant amount of contamination. This area can be accessed via the small gap as highlighted by the green arrow and flushed to verify cleanliness.



Image 85:

Another view of the small bracket on the rear of the axel, highlighting the small opening (green arrow), where a 90 degree lance can be inserted to flush this area and verify cleanliness.

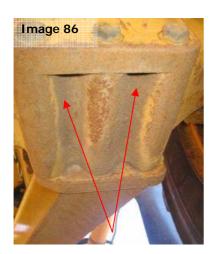
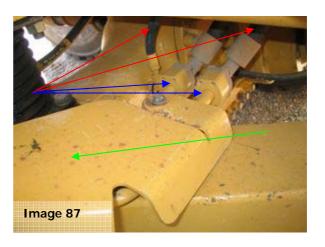


Image 86:

The underside of the axel on the rear chassis. Ensure all contamination has been removed from this undulating surface.



All hydraulic hoses (red arrows) and couplings (blue arrows) are free of all contamination. Remove any non-affixed panels (green arrow) for cleaning and inspection.



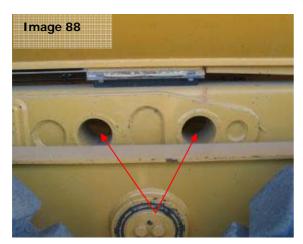
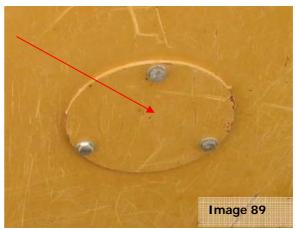


Image 88:

Openings in the chassis rails (red arrows) that require verification.

Image 89:

On some models, circular, non –affixed plates such as those highlighted may be found on the chassis rails. If present, these must be removed and the hollow channels verified clean.



7. The Dump Tray

Image 90:

After the rear chassis has been cleaned and inspected, the tray must be lowered for inspection. The exhaust openings (red arrows) must be flushed to verify internal cleanliness.

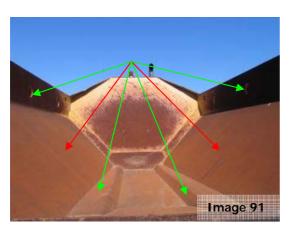


Image 90

Image 91:

The internal 'skin' of the tray must be thoroughly checked for any cracks, splits or evidence of repair. The sides (red arrows) are only single skinned however the green arrows highlight hollow areas that can harbour contamination if breached.



The rear section of the tray also has hollow sections (red arrows) that can harbour contamination if cracked, split or breached. Check along weld seams for any evidence of damage or breaches, allowing contamination to enter these sections.



Image 92

Image 93:

On some models a rear tray door may be present. These dump tray doors have hollow sections. Check both the internal and external surfaces as well as the welding seams for any cracks, splits or evidence of repair. If any cracks, splits or evidence of repair is found on any part of the dump tray, these must be investigated and it will the responsibility of the importer to verify these areas are clean and free of contamination.

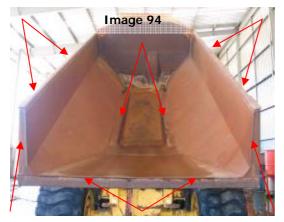


Image 95:

The rubber mounts (green arrows) under the tray need to be flushed to verify cleanliness.



Image 98:

Evidence of repair (green arrows). This illustration was from under the tray, where the hinges for the rear door attach. The section it attaches to is hollow (red arrow) and will require further investigation.

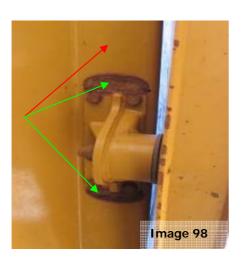


Image 94:

All welding seams (red arrows) must be thoroughly checked for any cracks, splits or evidence of repair.

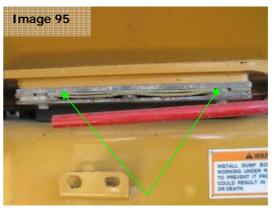


Image 96:

All contaminated grease must be removed from all pivot points.

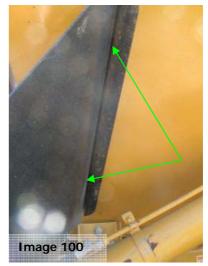
Image 97:

On some models, hollow channels under the tray must be cleaned and inspected.



8. General



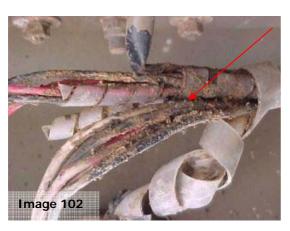


Images 99 & 100:

The rear mudguards and the small recess where it attaches to the tray. This area must be flushed to verify cleanliness.

Image 101:

All wiring harnesses must be free of contamination and thoroughly checked.



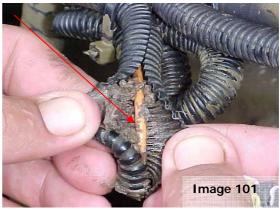


Image 102:

All looming must be free of contamination and thoroughly checked.







Image 104:

Flush all hollow tubing as highlighted by the red arrows.