



Australian Government

Australian Quarantine and Inspection Service

# SKID STEER LOADERS

## BOBCATS



### DISCLAIMER

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

- [1. Cabin, Joystick Controls, Air-conditioning & Housing](#)
- [2. Under the Cabin and inside Footwells](#)
- [3. Engine Bay, Fuel Cell and Batteries](#)
- [4. Radiator & Oil Cooler](#)
- [5. Underbelly](#)
- [6. Rear End](#)
- [7. Push Arms, Hydraulic Rams & Bucket](#)
- [8. Rims, Axles & Tracks](#)
- [9. General](#)

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## 1. Cabin, Joystick Controls, Air-conditioning & Housing



Image 2

### Images 2 & 3:

These illustrations highlight the cabins of different Skid Steers. Some are more complex and enclosed with air-conditioning as shown in illustration 2, while in illustration 3 a very simple example is provided. Examples of how to clean the cabins and present these machines for Quarantine inspection follow.



Image 3



Image 4

### Image 4:

On most models the housing, including the seat can be hydraulically lifted, exposing the back of the engine block and housing under the seat. While the cabin is elevated, check for any drainage holes on the cabin frame (green arrows) and flush to verify internal cleanliness.

### Image 5:

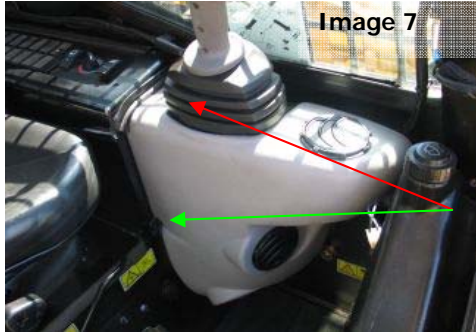
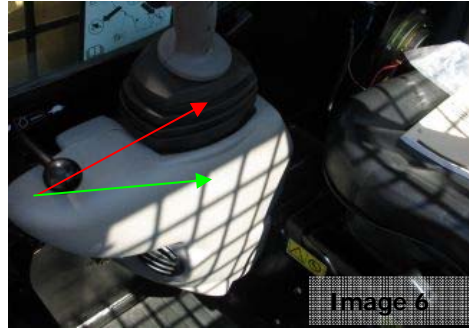
On other models, the box section under the seat may be accessible via small non-affixed plates like the one illustrated by the blue arrow. The rubber seat shroud (green arrow) must be thoroughly cleaned both inside and out.



Image 5

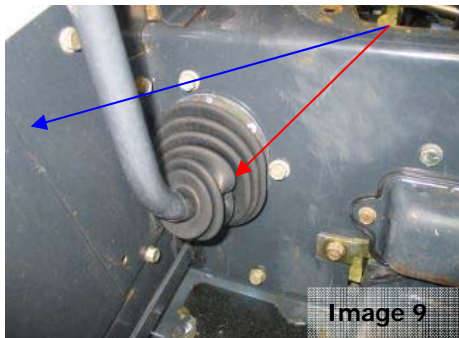
**Images 6 & 7:**

The joystick controls within the cabin. The internal housing (green arrows) must be cleaned and accessible at the time of inspection. All rubber shrouds (red arrows) must also be thoroughly cleaned and inspected, outside and in.



**Image 8:**

Remove all air-conditioning filters (red arrow) from inside the cabin and clean. These areas must be accessible for inspection.



**Image 9:**

All rubber shrouds (red arrow) must be cleaned (check for cracks or splits) and all non-affixed panels (blue arrow) must be removed for internal cleaning and all areas are to be accessible at the time of inspection.

**Image 10:**

Check all rubber shrouds on joystick controls (green arrow), externally and for any cracks or splits which could allow contamination inside.



**Image 11:**

Clean along the seat running tracks (red arrows) and under the seat (green arrow)





Image 12

**Image 12:**

On some models a small sunroof may be present. Ensure that all rubbers and seals around the sunroof are clean.

**Images 13 & 14:**

From inside the cabin, most Bobcats have gauges or instrument panels (red arrows) mounted to the vertical housing. Contamination can easily enter behind these gauges and the areas behind, must be cleaned and accessible at the time of inspection.



Image 13



Image 14

**Image 15:**

This centre switch panel cover (red arrows) must also be internally examined for cleanliness.



Image 15



Image 16

**Image 16 & 17:**

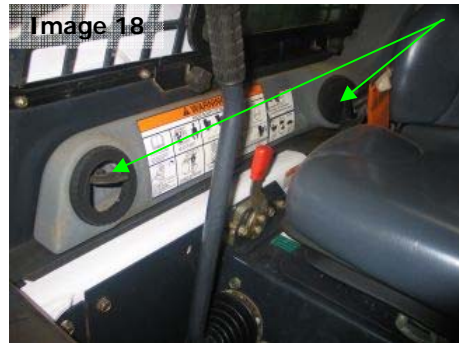
Highlights the insulation cover (red arrows) behind the seat inside the cabin. The glue holding these in place generally becomes redundant over time and any contamination found behind must be removed.



Image 17

**Images 18 & 19:**

Inside the air-conditioned cabin, the air-conditioning vents (green arrows) must be internally cleaned and accessible at the time of inspection.



**Images 20 & 21:**

These pictures highlight the internal cabin linings, which have been opened for cleaning and inspection purposes.



**Image 22:**

The external of the sealed, air-conditioned cabin. Check all windows and sills (green arrows) for contamination.



**Image 23:**

Another example of an internal air-conditioning vent (red arrow) that must be removed for cleaning and inspection.



## 2. Under the Cabin and inside Footwells

### Images 24 & 25:

Several examples of the confined space under the cabin floor of the skid steer loader. This area can harbour significant amounts of contamination (as highlighted) and due to the restrictive space, cleaning and inspecting this area can be very challenging. Most Skid Steer Loaders have non-affixed belly plates which makes the removal of contamination from under the cabin very difficult. To remove all contamination, the Skid Steer may have to have the front end raised on ramps, allowing the contamination to be flushed out the rear.

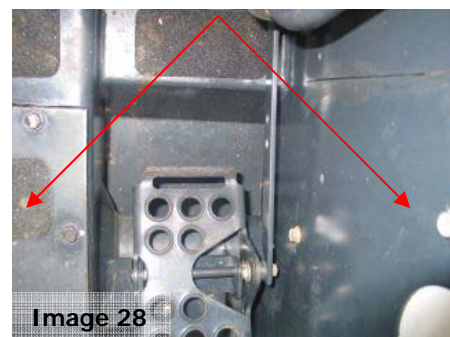


### Images 26 & 27:

The following photos demonstrate how on some models the side panels can be removed (green arrows), allowing cleaning and inspection access under the cabin. Removing these panels is not possible on all models of Skid Steer.

### Image 28:

The foot pedal of a general Skid Steer Loader. All non-affixed panels (red arrows) must be removed, allowing cleaning and inspection access.



### Image 29:

This image illustrates the amount of contamination that can be found under the foot pedal of a Skid Steer Loader.



**Image 30:**

On the floor under the cabin large amounts of contamination can be seen in this illustration. All contamination including plant material and contaminated grease must be removed.

**Image 31:**

The internal walls under the cabin must be free of all contamination. This illustration highlights the amount of contamination that can be found under the cabin.

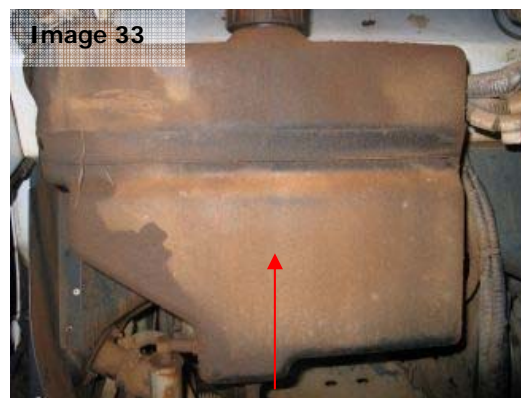


**Image 32:**

All ledges under the cabin have the potential to harbour contamination as highlighted.

**Image 33:**

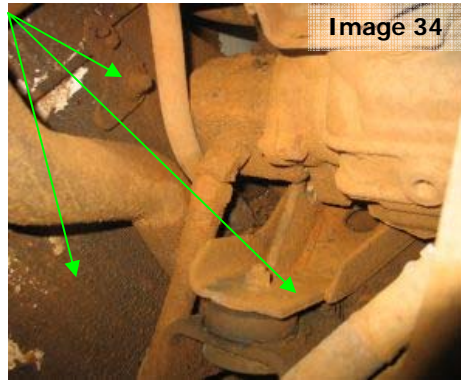
On this model the fuel cell (red arrow) is located behind the seat. All surfaces of the fuel cell must be clean. The band (green arrow) that holds the fuel cell in place must be loosened off so all contamination can be removed from underneath.





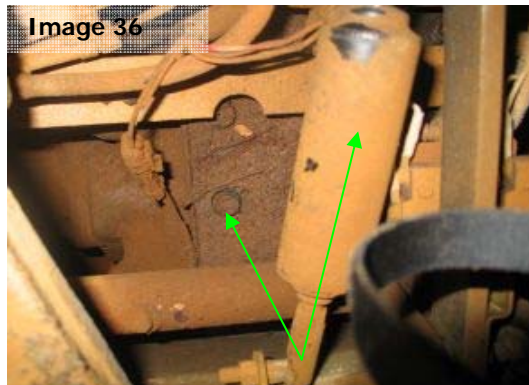
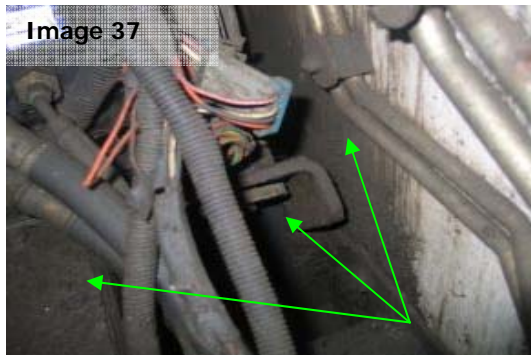
**Images 34 & 35:**

Examples of the amount of contamination that can be found on all surfaces under the cabin.



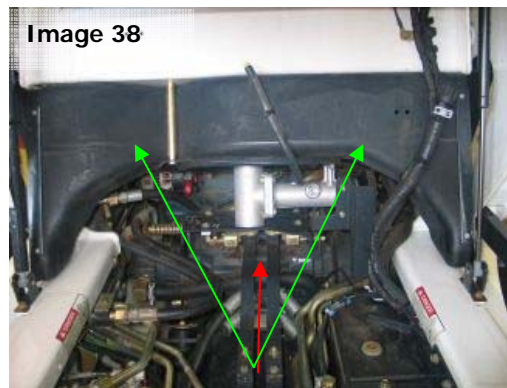
**Images 36 & 37:**

Further examples of the amount of contamination that can be found on all surfaces under the cabin.



**Image 38:**

With the cabin raised, access to the front of the engine block (red arrow) and radiator fan (green arrows) is possible.



**Image 39:**

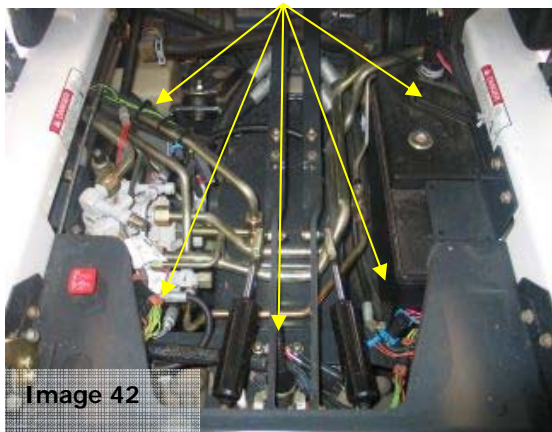
Illustrates the underside of the radiator fan (red arrow), which can be located once the cabin floor has been lifted. All internal surfaces and open-ended tubing (green arrow) must be verified clean.





**Images 40 & 41:**

The front of the engine block as seen from under the cabin. This area is very congested with numerous nooks and ledges that will require thorough cleaning and possibly inspection with a flexible mirror.



**Image 42:**

All surfaces under the cabin must be thoroughly cleaned and inspected.

**Image 43:**

On this model an opening on the side of the Skid Steer can be found, allowing the contaminants removed from inside, an exit point.





### 3. Engine Bay, Fuel Cell and Batteries



**Image 44:**

This image highlights the rear of the engine block and surrounding housing. This area is very congested, however some dismantling can facilitate the process. The plastic shroud (red arrow) and the battery (green arrow) can be removed to allow greater cleaning and inspection access.

**Image 45:**

The lights have been removed from the rear door for cleaning and inspection. All foam insulation inside the door (reverse side) must be flushed to verify cleanliness. The radiator core (green arrow) has also been unbolted to facilitate the cleaning and inspection process.

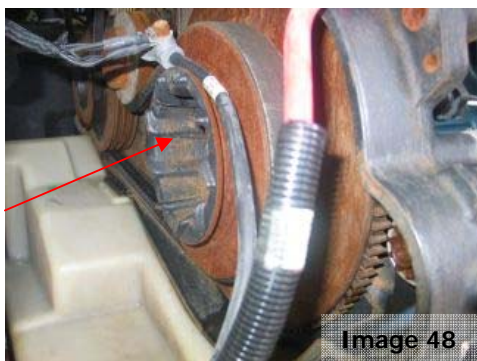


**Image 46:**

Another example of Skid Steer engine block. The battery has been removed (yellow arrow) and all non-affixed components have been removed, allowing greater cleaning and inspection access.

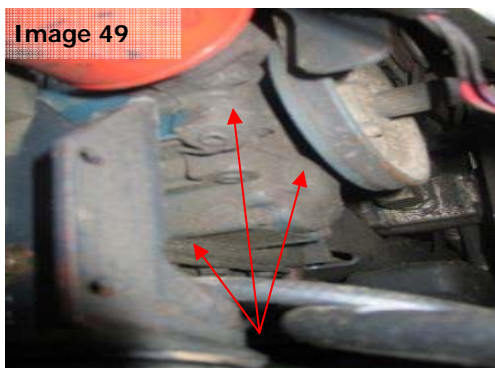
**Image 47:**

The rear and sides of the engine block can easily be cleaned and inspected, particularly with a 90 degree lance and flexible inspection mirrors.



**Image 48:**

The harmonic balancer (red arrow) is accessible once the plastic shroud has been removed. Most flywheels are concave, can harbour a significant amount of contamination and must be verified.

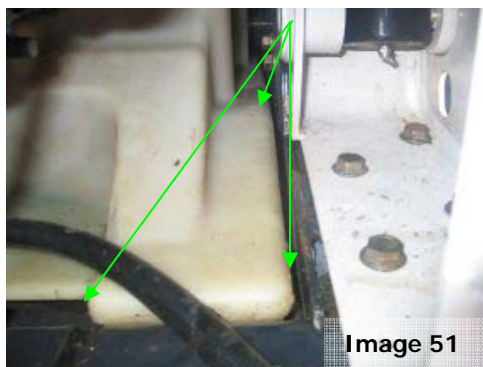
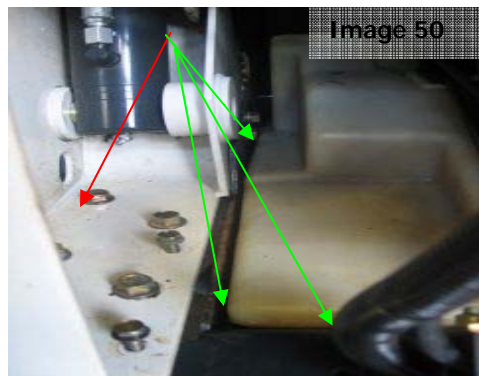


**Image 49:**

Under the harmonic balancer, the underside of the block (red arrows) may be accessible. All contaminated grease and residues must be removed.

**Images 50 & 51:**

These illustrations highlight the fuel cell, which is generally located under the engine block. The fuel cell is moulded to fit in this location, however small gaps (green arrows) around the perimeter can allow contamination to enter and go underneath the fuel cell. These small gaps must be flushed at the time of inspection in order to verify cleanliness. The battery (red arrow) has been removed.



**Image 52:**

The air-filter (red arrow) must be removed from the housing and the core checked to verify cleanliness.

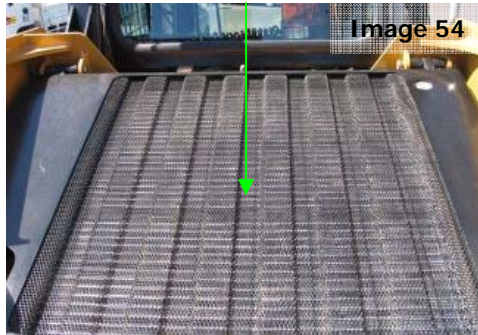


**Image 53:**

On some models the exhaust housing has an outside shroud with only a small access point highlighted by the green arrow. If present, areas like these must be flushed to verify cleanliness.



## 4. Radiator & Oil Cooler



**Image 54:**

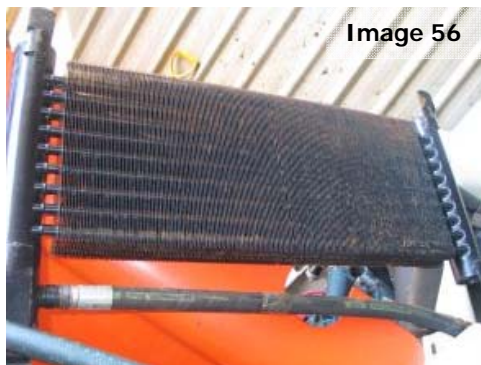
The topside of the radiator grill (green arrow) that can be lifted/removed to allow access to the radiator core.

**Image 55:**

Once the grill is lifted, access to the radiator core (green arrow) is gained. All radiator cores/fins must be flushed to verify cleanliness.



**Image 55**



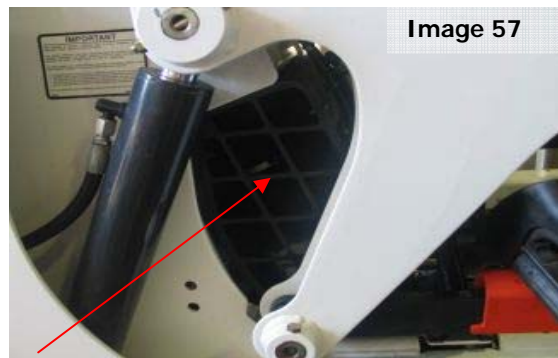
**Image 56**

**Images 56:**

This image highlights the radiator cooling fins. This unit has been unbolted for ease of flushing and inspection.

**Image 57:**

On the side of the Skid Steers, small grill (red arrow) may be present which allow air into the radiator fan. See next illustration. Remove all grills to allow for cleaning and inspection.



**Image 57**



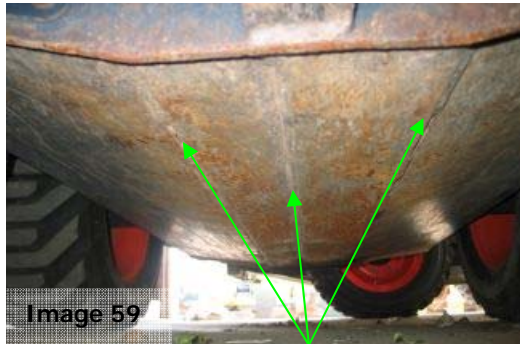
**Image 58**

**Image 58:**

Illustrates the underside of the radiator fan (red arrow), which can be located once the cabin floor has been lifted. All internal surfaces and open-ended tubing (green arrow) must be verified clean.



## 5. Underbelly

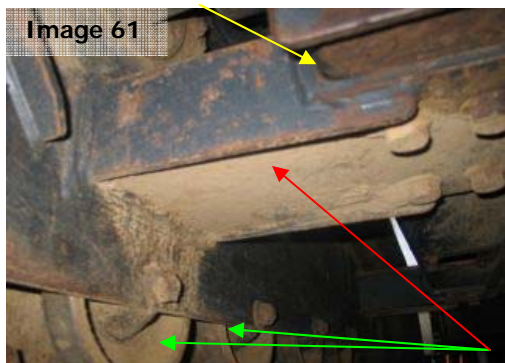


**Image 59:**

The underbelly of a typical Skid Steer Loader. These belly plates are generally affixed therefore making the removal of contamination from inside very difficult. On this model, the plates are seam welded and all contamination, even minor, must be removed from along the seams.

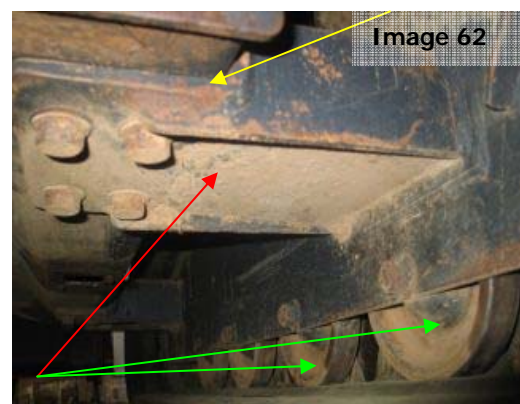
**Image 60:**

This underbelly is from a tracked model Skid Steer Loader. On this model there are several non-affixed panels that can be easily removed, allowing cleaning and inspection access as well as providing exit points for contamination under the cabin.



**Images 61 & 62:**

The rear axles on the tracked Skid Steer Loader. These areas are generally sealed, however the topside and underside (red arrows) can harbour contamination as illustrated in these pictures. The rollers (green arrows) are countersunk and also must be verified free of all contamination. Flush any small recesses (yellow arrows) to verify cleanliness.



**Images 63 & 64:**

Another view of the rear axle however the main focus is on the small drainage holes (green arrows) located halfway along the bottom chassis. Small non-affixed cover plates have been removed, allowing flushing and inspection access.



**Images 65 & 66:**

These illustrations highlight brackets (red arrows) that can be found under the rear on some models. These areas can harbour significant amounts of contamination as highlighted and therefore require checking to verify cleanliness.



**Image 67:**

Another example of a small drainage hole (red arrow) on the underside. These drainage holes can be used to flush out all contamination removed from under the cabin.

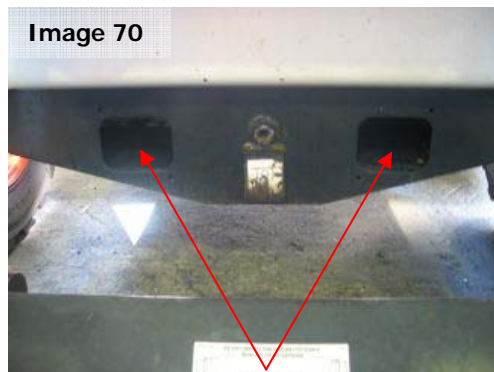


**Image 68:**

Another example of the small seams (green arrows) along the underbelly that can harbour small amounts of contamination.

**Image 69:**

Another small non-affixed plate (red arrow) that can be removed to facilitate the cleaning and inspection process.



**Image 70:**

Located at the front of some models, two small openings (red arrows) that must be clean. Depending on depth, these may require flushing to verify internal cleanliness.

**Image 71:**

Although not present on this or all Skid Steers, check all outside surfaces of the housing for any drainage holes that may be plugged. When present, they may be positioned where the green arrows highlight.





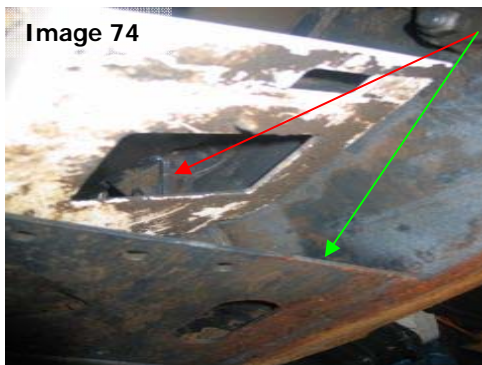
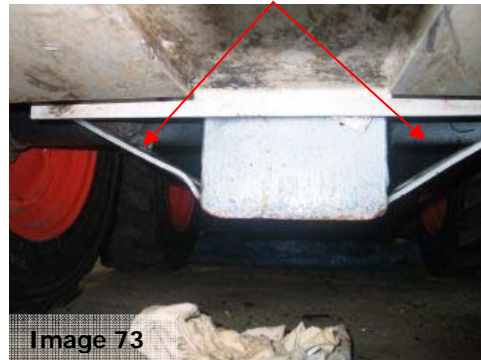


**Image 72:**

On this model, two small drainage holes can be seen, highlighted by the red arrows. These are only small openings and in this instance, they have been clogged with contamination to the point where they are hardly noticeable.

**Image 73:**

This illustration highlights another underside design where the ledges (red arrows) provide areas for contamination to be harboured. All must be verified clean.

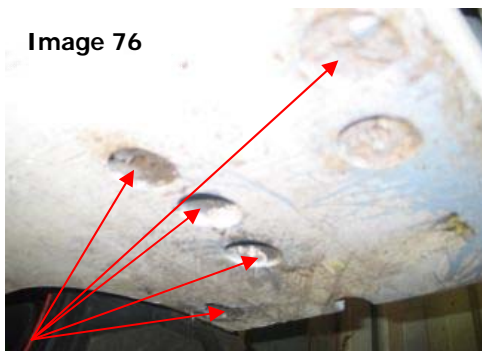


**Image 74:**

Another non-affixed panel removed (red arrow) and a gusset (green arrow) that can harbour contamination. All must be verified clean.

**Image 75:**

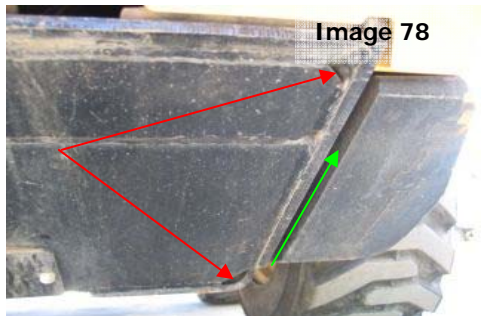
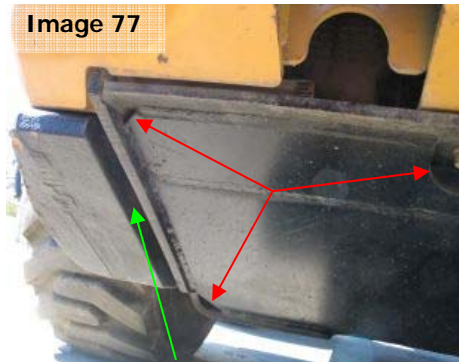
On this model, small countersunk holes (red arrows) can be found on the underside rear. These are not deep recesses, however some of those illustrated have had the contamination painted over. All contamination must be removed prior to painting as if any is detected, it will require removal, which removes fresh paint in the process.



## 6. Rear End

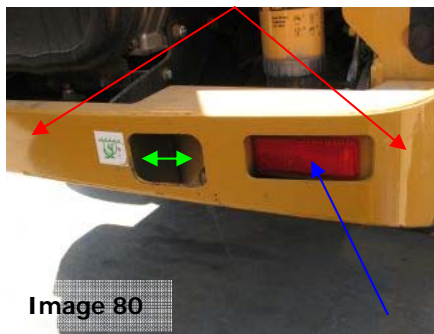
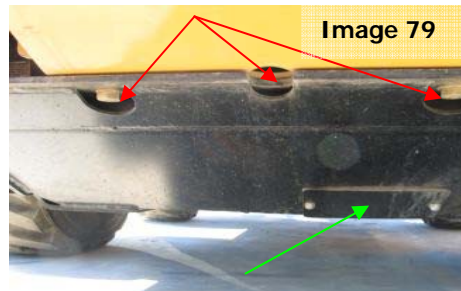
### Images 77 & 78:

Images of the rear end of a Skid Steer Loader where numerous drainage holes may be found (red arrows). All these drainage holes must be flushed to verify cleanliness. The green arrows highlight the small recess between the rear belly plate and the outside chassis, which will also require verification of cleanliness.



### Image 79:

On this model, there are several drainage holes (red arrows) and a small non-affixed plate on the underside (green arrow). This plate must be removed to facilitate the removal of contamination from around the engine block.

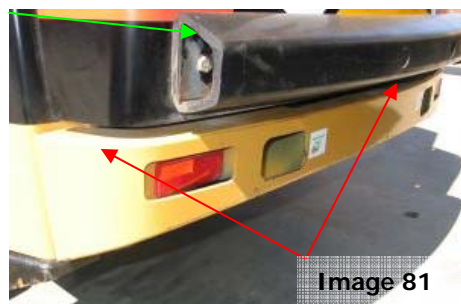


### Image 80:

On this model, a rear drawbar is present (red arrows) and will require flushing to verify internal cleanliness. Flushing can be accessed via the large opening highlighted by the green arrow). All indicator light covers (blue arrow) must be verified internally clean.

Another view of the open drawbar (red arrows), however this illustration also highlights an open-ended rubber nudge bar (green arrow) which is present to minimise rear end damage. This nudge bar will also require flushing to verify internal cleanliness.

### Image 81:



### Image 82:

Underneath the rear drawbar, several small recesses like the one illustrated may be found on some models. This one is full of contamination, which must be removed.

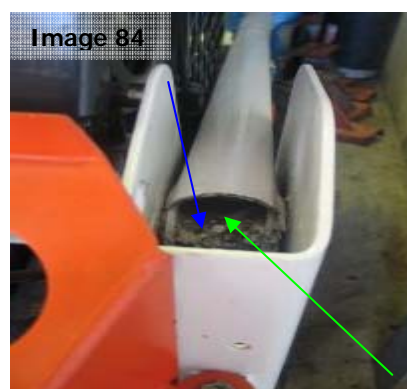


## 7. Push Arms, Hydraulic Rams & Bucket



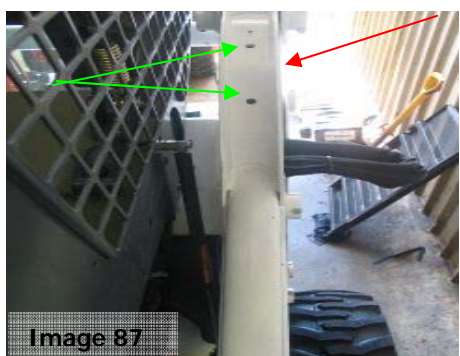
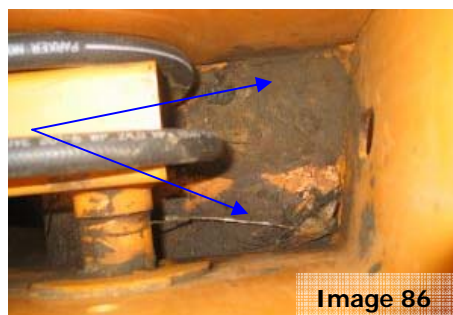
### Images 83 & 84:

These images highlight the top of the Skid Steer push arms, which, on these examples, are open-ended channels (green arrows) that will require flushing in the presence of the inspecting officer to verify cleanliness. The blue arrows highlight the area directly below, which is illustrated next.



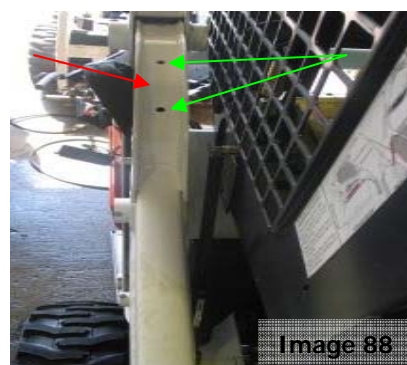
### Images 85 & 86:

As the blue arrows in the last illustrations highlighted, the area directly below the push arm pivot points is an open area and can harbour significant amounts of contamination, including dirty grease. All contamination must be removed.



### Images 87 & 89:

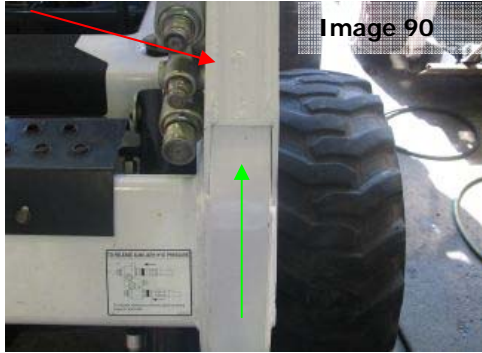
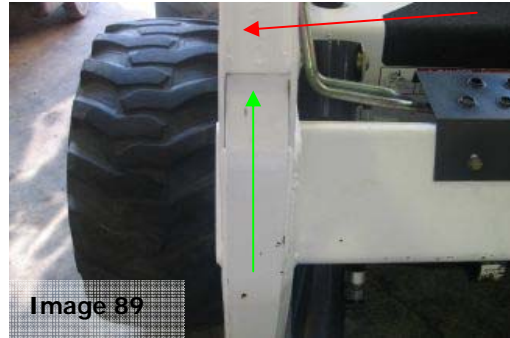
On some models, small brackets like the ones highlighted by the red arrows may be present. On this particular model there are two small openings (green arrows) that will require flushing to verify internal cleanliness.





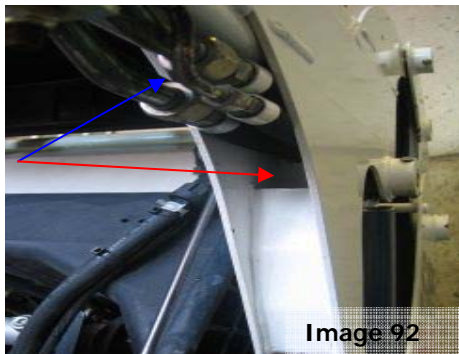
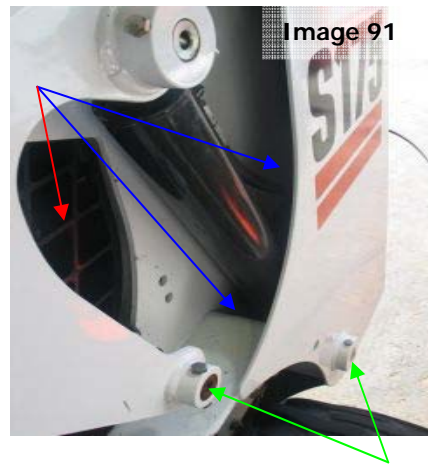
**Images 89 & 90:**

On this model, at the front of the push arms are more brackets (red arrows), which are not sealed. These areas will also require flushing to verify internal cleanliness.



**Image 91:**

This illustration highlights the base of the push arm hydraulic rams (blue arrows), the countersunk pivot points (green arrows) and the inlet to the radiator fan (red arrow). All areas must be thoroughly cleaned and inspected.



**Image 92:**

Check all openings (red arrow) and hydraulic hoses (blue arrows) for any contamination.

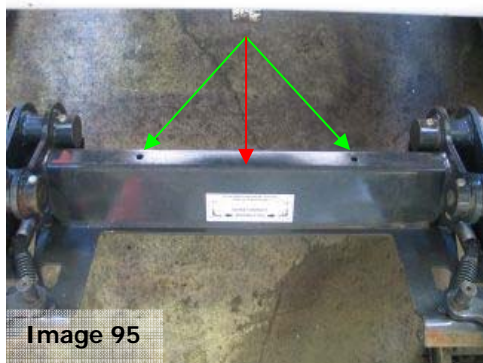
**Image 93:**

Another illustration of the countersunk pivot points (green arrows) of the push arms that must be checked and free of all contamination.



**Image 94:**

On some models, the crossbar between the two push arms (red arrow) is hollow and must be verified free of all contamination.



**Image 95:**

The front cross-member and bucket attachment point (red arrow). On this model there are small drainage holes (green arrows) that will require flushing to verify internal cleanliness.

**Image 96:**

A typical Skid Steer bucket. The cutting teeth along the front of the bucket (red arrows) must be loosened off to allow flushing and verification of cleanliness.

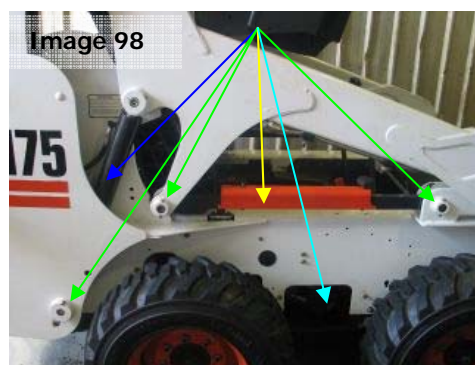


**Image 97:**

Check under any slides (red arrow) for any contamination. These can easily be removed for cleaning and verification.

**Image 98:**

From the side angle, this illustration highlights the many areas that must be verified including the base of the push arm (blue arrow), the countersunk pivot points (green arrows), drainage holes in the push arm (red arrows), the slide (yellow arrow) and the removal of any non-affixed panels from the side of the housing to facilitate the cleaning and inspection of the area below the cabin.



## 8. Rims, Axles & Tracks

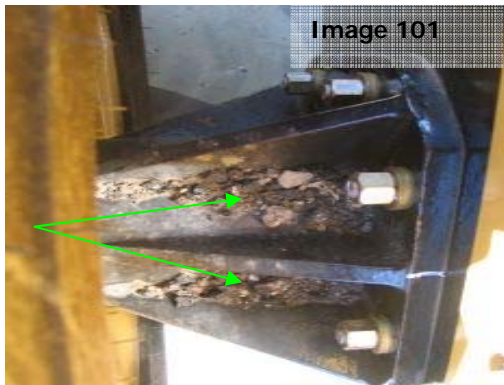
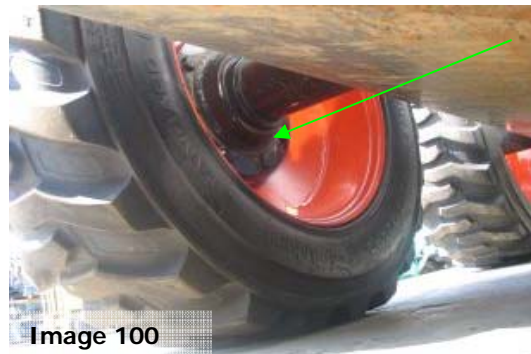


**Image 99:**

The outside wheel rim found on a typical Skid Steer Loader. Nothing too complex, but must be clean. All cracks and splits in any tyres must be free of contamination.

**Image 100:**

The inside wheel rim. Again nothing too complex but again all surfaces must be free of all contamination.

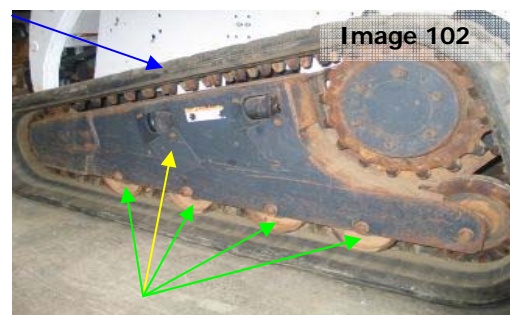


**Image 101:**

Most wheel axles are round on the Skid Steers, however on this model several gussets (green arrows) can be seen in this illustration, harbouring contamination. All must be removed.

**Image 102:**

The outer side of the track frame. All rollers (green arrows) must be cleaned and all non-affixed panels from the outside track frame (yellow arrow) are to be removed for cleaning and inspection. The inside of the track frame must be flushed to verify internal cleanliness. The rubber track pad (blue arrow) must be fully inspected for any cracks or splits, which can harbour contamination.





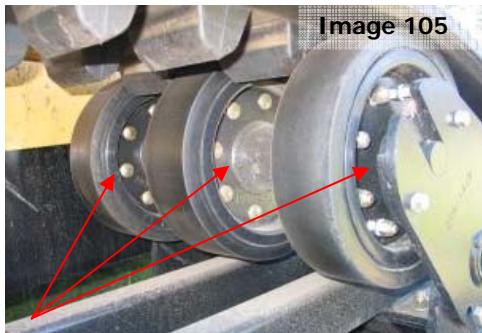
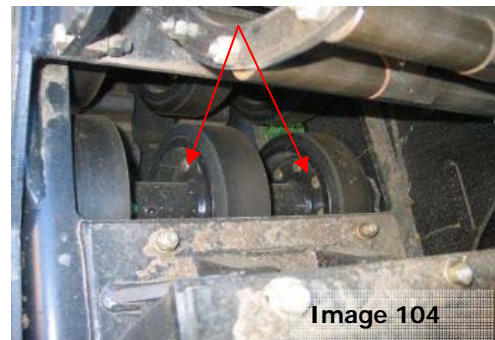


**Image 103:**

On some of the latest models the rollers are not enclosed, making cleaning and inspection access easier. Each roller and the limited housing still requires thorough cleaning and inspection. The track pads must undergo one full revolution to enable full inspection.

**Image 104:**

Each individual roller (red arrows), both inside surfaces and out, must be thoroughly cleaned and inspected.



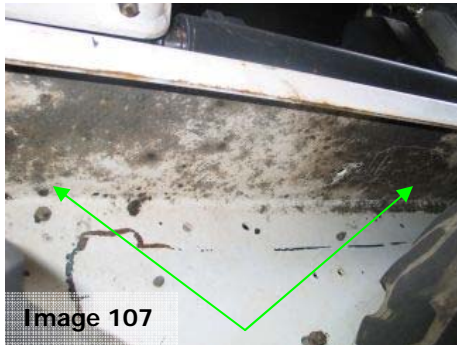
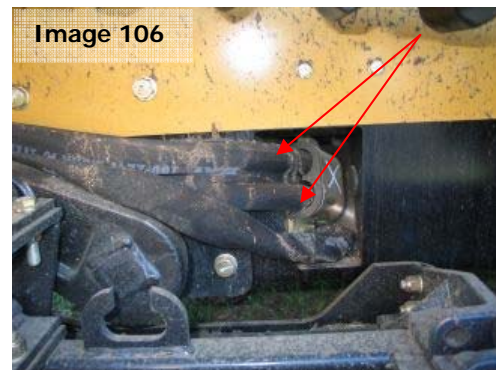
**Image 105:**

The carrier rollers (red arrows) must also be thoroughly cleaned and inspected.

## 9. General

### Image 106:

On the tracked models, the hydraulic hoses (red arrows) may enter the side via access holes. All hydraulic hoses must be verified clean.

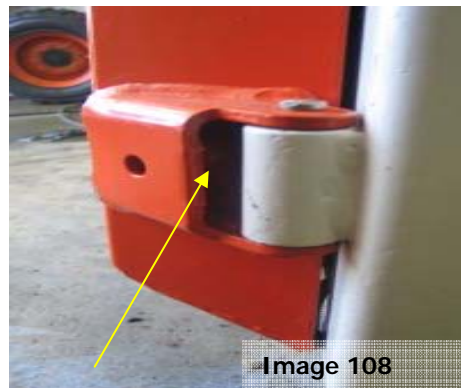


### Image 107:

If a wheel arch (green arrows) is present, these must be free of all contamination, with particular emphasis on the underside required.

### Image 108:

The hinges on the rear door have a small recess (yellow arrow) and must be verified clean.



### Image 109:

All Skid Steer tyres must be checked for cracks and splits. If any cracks or splits are present, then all must be verified free of contamination.

### Image 110:

All wiring harnesses are to be carefully cleaned and inspected.



### Image 111:

All looming around hydraulic hoses is to be carefully cleaned and inspected.