

# **Rattle Can Paint Job: Kubota L2000 Restoration**

## **Paint your own Kubota**

### **Rattle Can Style**

This is a JDM (Japanese Domestic Market or gray market) Kubota L2000 that we recently painted "rattle can style" in our garage at home using the techniques we described in our rattle can paint techniques article. This particular L2000 was manufactured by Kubota in Japan around 1978. Notice that we took a little editorial licence in customizing the appearance of this Kubota. Down the center of the hood we sprayed Duplicolor spray on truck bed liner. It has a unique stippled finish to it and it toughens up the hood a bit and makes your Kubota look like a "sport model". We also used this spray liner on the lower grille area and the underside of the hood.



A 1978 Kubota L2000 with restored paint using factory Kubota paint and decals

**Decals, Wheels and Muffler**

Notice the new Kubota decals on this tractor, they are 100% genuine Kubota inventory and are still readily available today. You'll notice that the wheels were painted white using Kilz and then reversed to gain a wider footprint yielding additional stability. The muffler and exhaust stack were painted as well.



A side shot of the L2000 detailing the painted frame, muffler and stack, wheels and installed decals

### Dash Restoration

The dash assembly on this L2000 was not painted, rather it was machine polished and waxed. The rest of the tractor was very faded out, despite the low 349 original hours – the tractor is still 30+ years old. We decided to keep the brake pedals yellow as was factory, and replaced the bright red service point accents as can be seen on the engine air kill lever and the transmission oil fill area.



The dash of the tractor was not repainted but came up really well after machine polishing and using a bit of wax

The paint restoration of this L2000 is just one example of how a few simple techniques combined with the right paint can restore the look of your sun faded tractor in no time!

# The Rattle Can Paint Job

If you own an earlier B or L series Kubota tractor, you already know that the paint, now 25+ years old, looks faded and dry, dull and powdery, rusty and thin. That is the curse of Kubota paint! There is a great way to restore the pride of ownership of your Kubota tractor and that's with a new paint job! In the following four posts we'll show you how over the course of a weekend you can dramatically improve the appearance of your Kubota with a few spray cans and some time honored body shop techniques. A small investment of time and money will produce professional results and a Kubota that looks a lot less than 25 years old!



A late 1970s Kubota L2000 that has been repainted using some careful preparation, a spray can and the techniques described in this article

## The Wash Rack

Step one in your rattle can paint job starts with a good through cleaning and degreasing of your Kubota. It helps to have a pressure washer to assist in blasting off dirt and grime. You may consider loading your Kubota onto a car trailer and take it to the local car wash if you have poor pressure from your garden hose. The point being – a great paint job, even on a Kubota tractor starts with a clean substrate, so don't skimp here – really make a good effort to clean your tractor.



A Kubota B6200 with sheet metal removed before a much needed wash and engine degrease

Start by using an engine cleaner, like Gunk's Engine Brite, spraying it on the engine, transmission, differentials, wheels and tires. In the absence of an engine shampoo, a good all purpose non-butyl type of degreaser may also be employed. Apply the degreaser liberally to all parts of the tractor and allow the product to dwell for several minutes before hosing or pressuring off. Rinse the tractor well to remove trace soap and cleaner that could be a problem later.

Once the wash job is done it is not a bad idea to fire up the air compressor and using a blow gun tip blow out the nooks and crannies. Try to push as much water out as possible. In the absence of an air compressor you may want to let the tractor stand for a few hours and let evaporation do the job.

### **Painting in the Shop or Field?**

It is possible to paint your Kubota tractor outside providing you have the correct ambient temperature necessary for painting. Too cold, and the paint will run and pool, never properly curing. Too hot, and the paint will flash dry making it very difficult to carry forward a wet edge necessary in achieving a uniform gloss. You'll also need to consider wind and insects if you decide to paint outside. Bugs and small black things with wings are attracted to fresh Kubota orange paint. Painting in a shop is the best choice because you can better control the environment.

In order to get the best possible paint result some disassembly of your Kubota is required. Thankfully, this can be done in about a 30-45 minutes for most B and L series so it is not a big deal. Start by:

- jacking up the tractor with a floor jack, blocking it up as you go
- remove the wheels – make sure to put the washers and nuts back onto the studs so they get painted
- remove the rear fenders
- remove the seat
- remove the hood
- remove the battery
- (optional) remove the exhaust if it is in the way by undoing four 12mm nuts

At this point you need to decide whether or not the instrument cluster/dash assembly on your Kubota actually needs repainting. We've had good success on several other Kubota's by machine polishing and then waxing this part rather than dismantling it off the tractor. Once polished and waxed it looks pretty good, very acceptable – the choice is yours really. If you do decide to disassemble the dash, you will need to pull the steering wheel, unhook the wiring and remove gauges. For the Kubota we are demonstrating on here, we took the route of removing the dash assembly as well.

## Masking Tape – Use It

With all the orange parts removed from your Kubota you are ready to start masking a couple of things up before laying down the Kubota blue chassis and engine paint. Absolutely nothing says amateur paint job better than an upper radiator hose that is covered in paint, a black radiator that is over-sprayed blue or a starter motor the wrong color! Use some masking tape and paper or use a cardboard scrap to shield those areas while spraying. Do not forget to mask off the serial number and model identification plate, and cover the air box.

## How to Use a Spray Can Properly

It occurred to me that now might be a good time to talk a little about how to properly use a spray can. First, if the instruction on the can says to “shake well for 2 minutes” it means 2 minutes, not 10 seconds. A Kubota spray paint can takes about a minute of shaking before you will hear the ball bearing in the can break free. Once the bearing is moving inside the can, the paint will mix quicker. Shake for 2 minutes!

When applying the paint, expect your index finger to get real sore, real fast. That is because when using a spray can, you depress the nozzle at the beginning of each pass, and at the end of that same pass. Do not simply push the nozzle down and then move your arm around all over the place. Painting with a spray gun or spray can is methodical and controlled. The paint must be applied in such a manner as to allow the applicator to see the wet edge of the paint being applied and then overlap the subsequent pass, again pushing a wet edge of paint.

You need to make sure that as you come to the end of your pass your arm is kept at the same distance from the surface as when you started your pass. What can happen is your arm moves in an arc getting gradually further away from your work as you move the spray can from say left to right. Train yourself to reposition your body to compensate for this natural arc.



A spray can adapter can save your trigger finger and makes a can easier to use

Take a look at your favorite auto parts store for a spray can or gun adapter. It's a handy, low cost device that snaps onto the top of a spray can and allows you to have a trigger pull on the spray can. Turns your can into mini spray gun!

## **Personal Protection**

Do not forget a couple of personal protection items you'll need to have to pull this paint job off. You'll need:

- a few pairs of disposable rubber or latex gloves
- good quality paint or strain grade respirator (not a flimsy white paper one)
- shop coat or apron
- safety glasses

At this point we have the right paint in the right quantity, a cleaned, disassembled tractor, we know how to spray and we have our gloves and respirator on.

## **Painting the Chassis**

You will not need to sand or prime the blue chassis of your Kubota. If it's clean and free of grease then lay down the spray. Starting at the left front corner of the tractor start spraying the chassis. Adjust your vantage point so you can see the wet edge of the paint as it's applied to the tractor. Overlap each new course of paint approximately 50% over the previous course. Work your way around the entire tractor painting all the blue. Areas that should be painted in Kubota Blue are:

- front bumper
- engine block
- firewall
- front steering and/or front 4×4 differential
- transmission and the transmission tunnel (B series)
- rear axle
- gear cases
- 3 point hitch
- clutch and brake pedals (if you decide to paint them blue)

Your Kubota may have brake pedals that are yellow. It is okay to paint them blue! They are blue on the newer models!

Once you've made one complete lap around the chassis and have laid down the first coat of blue, start right back and lay down a second coat in the same manner. This is when you will really see the color fill in and your Kubota tractor chassis will really come back to life. The 3 point hitch arms and lift links may need a third coat. The lift arms seem to show wear a lot more than say the side of the engine block, so spray them well. Once the second coat is done get a trouble light and inspect any of the tight spots for paint coverage. Areas to double-check would be: behind the hydraulic pump, above and to the left of the injector lift pump, the area just above the starter etc. Re-spray as needed to ensure proper consistent coverage.

### Devil's in the Details

Once the chassis is done you can turn your attention to a couple of quick detail items that will really make your repaint job look professional. If you have some semi-gloss black paint in the shop, give the radiator and its shroud a quick once over. If you are careful, you can also shoot the top rad hose. The cloth covered Kubota rad hoses always look dull and old so a little touch-up here looks great.

Next, if you have some clear coat, spray the air box. By spraying it clear you'll save any of the service instructions printed on the box and it'll brighten that part right up. Spray the big air intake tube and any small hoses or wiring you see in the engine compartment. Do not worry about masking anything off when using the clear. That's the beauty of it – it makes whatever it goes on look clean and new.



We apply clear coat to the air box, small hoses or compartments in the engine bay - brightens them up like new.

With the chassis freshly painted and the balance of the engine compartment detailed out, we can now take a look at restoring the appearance of the wheels on your Kubota.

### Orange or White Wheels?

Kubota has two shades of Orange spray paint which you can learn about by taking a look at our Kubota Paint Numbers and Coverage Table.

Which shade of orange you use (Orange Enamel vs. Bright Orange II) on your rims will be determined by your tractor's vintage. Orange Enamel is a lighter orange with no hint of red. The newer Bright Orange II is a bit reddish and appears darker when laid beside the older orange.

Early Kubota B and L series tractors, North American and JDM (Japanese Domestic Market/Gray Market) models were all Orange Enamel. The BX tractors, B5200, B6200, B7200, B8200, B9200, the L-1 Series Kubota's, the M Series and the re-released B7100s were all Bright Orange II. If you're a stickler for authenticity that may matter on your wheels. But wait! There's more...

Japanese Domestic Market (gray market) B Series tractors had orange wheels, L Series models like L1500, L1501, L1511, L1801, L2000, L2201, etc, all had orange wheels, Kubota 02 series tractors, the models made in conjunction with Kioti/Daedong had white wheels. You can paint your previously orange wheels white, or your previously white wheel orange. You've got a lot of options here. If you are in doubt – post a comment and we can help you with your application.

## Wheel Prep

Prior to doing any painting on your Kubota's wheels, you need to clean them with a surface prep. In earlier times, surface prep was wax and grease remover. Whichever terminology your familiar with you need to thoroughly clean the wheels to remove any surface contaminants like wax, silicone, tire dressings, grease, even finger prints. Wipe down using a paper shop towel, not a rag that's been moistened as the old rag may transfer back exactly what you're trying to remove.

After a wipe down on both sides of the wheel rims, use some Windex or other neutralizer to wipe away any trace elements of the surface prep. This will ensure that residue from the prep cleaner does not affect your paint job.

## Scotch Brite

The wheels are going to need a little scuff to make sure the paint gets good adhesion. 3M makes a scrubbing product known as Scotch Brite. Using a red Scotch Brite, scuff the wheel rim on both sides. It won't take much effort but it goes a long way in giving a professional finish.

Next, take some masking tape and mask off the valve stem, and mask completely around the lip of the wheel rim on both sides. A 2 or 2.5" wide masking tape works well here. The masking tape on the rim lip will keep 99% of any overspray from landing on the tire.

Wipe the wheels down one final time with a shop towel to remove any fine sanding dust, it's now painting time!



The wheel of our Kubota before prep and masking.



We've used 2" wide tape to mask the wheels on our Kubota.



Wheels after prep, masking and painting.

## Painting the Wheels

The wheels are going to need two coats of paint to adequately cover any nicks and bare spots on them. The first coat should be lighter than the second. Do not worry too much about uniformity of gloss on the first coat – you can take care of that on the second and final coat. When laying down the second coat make sure you can see the paint laying down on the rim. You're going to want to see a wet edge as you cover all areas of the rim. Overlap as you did with the frame/chassis, and the wheels will look awesome when you are done.

### A Helpful Tip for White Wheels

If you are painting the white wheels on a JDM Kubota 02 Series tractor, (L1802, L2002 etc), we found that Kilz brand aerosol primer and stain blocker does an incredible job covering the wheels. It's inexpensive and readily available at your nearest Home Depot. The finish is a little flatter in gloss than the original paint shade, but the overall coverage and no run application makes the job a snap. Kubota does make white wheel paint; Kilz is a great over-the- counter alternative.



Kilz in a spray can is an over the counter alternative to Kubota's white paint



Kilz applied to our Kubota's wheels.

### Next Steps

Now that the chassis and frame is nice and blue, the engine bay and radiator is detailed and the wheels are fresh – we are ready to move onto preparing the fenders, hood and dash for paint.

### Dismantle Fenders and Hood

The next step in the weekend overhaul of your Kubota tractor is to further dismantle the fenders and hood. Remove the fender grab handles, taillights as well as the front grille and headlamps. If you have not dismantled the dash yet, remove the gauges, wiring harness, ignition switch, glow plug indicator, horn, signal and headlamp switch. These switches come off pretty quickly and with them out of the way it's easier to achieve a better overall paint job – less precision masking to do.

### Decal Removal

Next, using a heat gun, remove all the decals and tractor operation stickers. Most of the decals are vinyl backed and a few are foil backed but, either way, you will find they release very well after some gentle heating. Any glue residue can be removed with your wax and grease remover or surface prep. Nearly all of your tractors safety and operating decals are available from your Kubota Dealer. You can check your Kubota parts manual under labels to determine the correct part numbers to order. If you decide against replacing the decals then take the time to mask them up.

### Exhaust Stack

Now would be a good time to shoot a little semi-gloss black paint onto the muffler and exhaust stack pipe if you removed it when preparing to paint the chassis/frame. You'll need to re-install it shortly and it might as well look good!



We've hit the muffler and exhaust stack with a little bit of generic semi-gloss black. Looks great and takes only a moment to do.

### Sanding Fenders, Hood and Dash

Next step is to so some sanding down of the old finish and to feather out any deep scratches. Sanding will also remove any of the loose flaking paint that is so prevalent in early Kubota B and L series tractors. Using a hand-held orbital sander with a 5" velcro pad and a few different grits does an excellent job and requires very little effort so it's the tool of choice in our shop when it comes to this type of surface prep job.

It is a good idea to take care of the rust, scale and deep scratches first, by spot sanding these areas. Mount up a disc of 60 or 80 grit paper on your orbital sander and concentrate on those areas first. Again, confine your sanding with this heavy grit to just the areas that require the most sanding. The heavy grit will chew through the rust and scale quickly. It's okay to take these rough areas right down to shiny metal.



Serious hood rust on the hood of this Kubota is what we are looking to grind down to bare metal with our 60 or 80 grit sandpaper.

Once you have removed and sanded all the rust spots out of the sheet metal, you can then switch sanding discs and begin to work the fenders, hood, and dash in their entirety. Start with a 120 or a 150 grit paper and systematically sand all areas. It's okay if you sand the odd area right through to metal, those parts will cover up when you prime them. Switch to new discs often when you feel the old one is no longer biting the surface of the old paint. Once you have fully and completely sanded every square inch of the fenders, hood and dash with 120 grit, switch to 180 or 220 grit and make one complete pass around everything again with your orbital sander. Tight spots and compound curves may require a little hand sanding.



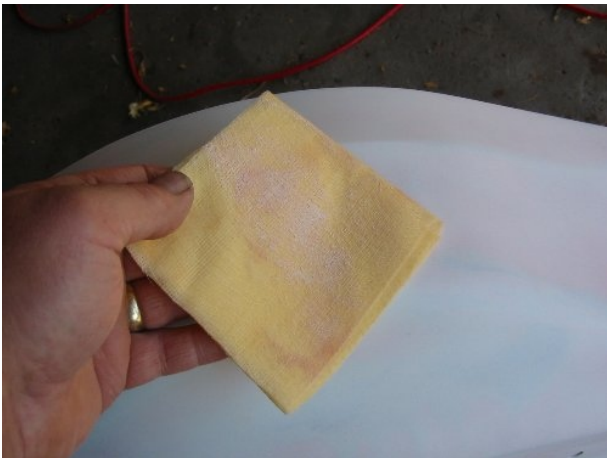
The dash of a Kubota after orbital sanding with 60, 120 and 180 grit sandpaper. Some areas have bare metal exposed which will be covered during the priming process.

### **Primer's Role – Not a Replacement for Good Sanding**

It's important to note that new primer and paint is not going to cover and hide anything that you did not remove or sand out during the sanding and prep stages. If you can feel a scratch or an imperfection with your finger tips then you will still see the scratch or imperfection after you have laid down the paint. There is no substitute for taking the time to do this preparation correctly. Look closely at the work while you are sanding and feel the area often to check your progress in achieving as close to a flawless surface as possible.

### **Tack Cloth**

Now that we've sanded the fenders, hood and dash completely down to a 180 or 220 finish, the next step is to remove any dust and sanding debris before applying the primer paint to the metal. Wet a shop towel with Windex and wipe down all the metal areas of each fender, the hood and the dash. Turn the towel frequently to keep it clean, moisten as necessary.



A tack cloth is available from your local home hardware store. We're using it here after priming to mop up any particles or debris before painting.

With that done, the next step is to re-wipe everything again, this time with a tack cloth. A tack cloth is just that – a tacky cloth! They're sticky and are excellent for picking up minute traces of dust that can really show up when painting and they do not leave a residue when used correctly. Press lightly when using a tack cloth – just glide it over the surface being cleaned. If you drop it on the shop floor, get a new one – that one is finished as it will have picked up a ton of particles off the garage or shop floor.

### **Finally Ready for Primer**

It will be necessary to apply at least 2 coats of primer to all fenders, hood, and dash. While it is possible to simply spot prime these parts, the results are much better if you lay down a good undercoating of primer before laying on the top coat of Kubota Orange Paint. You'll find automotive primer in a few different colors these days, including black, white, and yellow and of course the classics: red oxide and gray. The best results we have had so far are when we use gray primer.

The first coat of primer should be light – spray only enough on to lightly cover the old paint and bare metal under it, using the same application techniques as discussed when we painted the chassis and frame. Let the first prime coat fully dry and then apply a second full coat. By this time, the fenders, hood and dash should all look solidly gray with no visible bare spots or old paint showing through the primer.



The fender of our Kubota after the first coat of primer. By the second coat, the fender should be uniformly grey with no visible metal or old paint.

Once the second full coat of primer has dried, rub your hand over the fenders and hood and dash. How do they feel? Rough, right? That's okay. Take out your scotch brite pad or fold a disc of 320 grit sandpaper in quarters and lightly hand sand all the primered parts. As you do, this the finish will begin to feel glassy smooth. Don't sand too deep, you're just trying to knock off the rough feel metal gets when you spray it with primer. If you burn through the primer in a spot or two at this stage, touch those areas back up with primer and re sand with the 320 or scotch brite pad when dry. One final wipe down with Windex followed by your tack cloth and you are ready to start laying down that fresh Kubota paint.



Use your hands to feel the finish after priming and then take a 320 grit sandpaper to the fender after the second coat of primer. Eliminate any roughness you feel before painting.

### **First Coat of Paint – “Fog Coat”**

The first coat of paint that you lay down is a fog coat. The fender or hood will look pretty spotty after this first coat goes down. Spray each fender, the hood and the dash area completely. Remember, less is more at this point.



This is what our fender looks like after the first coat - spotty with primer barely visible in some spots.

## **Second Coat**

Immediately after the first fog coat has flashed off you can start spraying on a heavier intermediate coat. Do not worry about maintaining a level of gloss consistency here as that will come on the final coat. The purpose of this intermediate coat is to build the paint and fill in any areas the fog coat has missed.

## **Final Coat**

The third coat of paint can be applied as soon as the intermediate coat has dried. When you start laying the paint down, you need to be watching for the wet edge the spray can is putting out. By overlapping 50% on each subsequent pass with your spray can, you'll be able to maintain an even gloss. The purpose of this third coat is gloss, so take your time here. Making use of a work light can really assist in watching the paint lay down. Don't forget to turn on and turn off the spray at the beginning and end of each and every pass. Be on the lookout for dry, dull spots. These indicate a lack of coverage in that area. Watch the wet edge as the paint is applied and you'll be in good shape.



The fender after the third coat of paint is applied.

## **Painting your ROPS**

If your Kubota is fitted with a ROPS (roll over protection structure), painting it is pretty straight forward as well. Kubota tractors are available with either a single post ROPS, a dual post version, a fixed ROPS and a foldable version. Lightly sand any deep scratches that may exist in the paint. The ROPS will show the most wear in the 3 point hitch area, so sand these parts well. Put the ROPS over a pair of saw horses and undertake painting one side of the structure at a time. It's a little heavy and awkward to try and paint both sides at the same time. Use your Kubota Gray on the ROPS for an authentic match, although it's fine to paint it blue or black. Fresh always looks better than worn out.

## **Reassembly**

After your final coat has been applied allow the fenders, hood and dash to air dry for several hours. This will allow the paint to harden to a degree that handling won't leave fingerprint marks. Keeping the heat up in the shop or putting a set of shop lights close to the fenders and hood will raise the ambient temperature, drying and hardening the paint faster.

Once you can handle these parts without leaving a mark on them, peel away any masking tape that you have applied over service and operation decals. Next reinstall the grab handles and taillights to the fenders, reinstall the grille and headlight surrounds and hood latch if your tractor is equipped with it.

Use care when reassembling the dash. Because it requires handling to reinstall the gauges, switches and wiring it can be easily scratched. Protect it by placing it on a padded blanket or a couple of thick towels while reassembling.

With the dash back together and reinstalled on the tractor, reinstall the steering wheel, and the muffler and exhaust stack. Reinstall the hood and hood latches, re-connect the headlamp and tail lamp wiring, and then install the wheels.

If you removed the ROPS for painting, reinstall it now. Watch for a shim pack on a few B series tractors. The shims were placed between the inside of the ROPS frame and the rear of the axle housing to garner a tighter fit and prevent a rattle when operating the tractor. Since the metal is so thick on the ROPS mount here, it won't bend in to meet the tractors aluminum gear housing. Without shims here the threads are at risk of stripping out before the ROPS is completely tightened.

## Decals and Details

No complete makeover would be complete without installing new decals. This includes Kubota name and brand identifiers, model identifiers, service instructions, operation instructions, safety cautions, operator cautions, 3 point hitch and ROPS safety. Kubota is probably one of the best companies for having and maintaining the decal inventories on all their tractor models. Whether you're working on an L175 from 1977, or a Grand L 3010 from 1999, Kubota will have your decals.



New original Kubota decals for our L2250 - all still available from Kubota.

The smaller decals are pretty straightforward to install, just make sure that you don't get a crease in them when installing. The longer hood identifier decals can be a little tricky to install because they are so sticky – a mistake here would be a bad thing. To ensure the job is pulled off like a pro, spray some Windex on the side of the hood you're working on. With it wet, apply the hood decal. The moisture from the Windex will allow the decal to slide around a little so you can place it exactly where it's needed. Then using a squeegee you can push the excess Windex out from under the decal. Perfect!



For applying the longer decals to your Kubota, pre-wet the area with Windex before applying. This will give you a chance to position the decal a bit better without having to worry about getting the exact right away. Press the excess out with a squeegee and the job is done.

### **How long does all of this take?**

It sounds like a lot of work to do and it is! You're going to be busy for two days. It's easy and rewarding to pull this off in a weekend, easier on a long weekend. Here's a time line to keep you on task:

#### **Day One**

- clean tractor
- disassemble fenders, wheels, hood and dash
- paint frame and chassis
- paint wheels
- sand fenders, hood and dash
- prime fenders, hood and dash

#### **Day Two**

- apply 3 coats of paint to hood, fenders and dash
- reassemble tractor
- install wheels
- apply new decals