

John Deere 6800 Lynx project:

Breathing new life into a 30 year-old Deere

UPDATING A CLASSIC

- ▶ **Part 1** Meet and greet
- ▶ **Part 2** Tractor rebuild and paint
- ▶ **Part 3** Front linkage and pto
- ▶ **Part 4** Loader fitment
- ▶ **Part 5** Reversible fan and pick up hitch

Back in 1992, Nick Ewbank and his wife Nicki set up Lynx Engineering at what remains their base at Long Buckby, Northamptonshire. Initially established to supply and fit Zuidberg front linkage and pto systems, the company was subsequently approached by Stoll in 1996 to take on the distribution of their front loaders in the UK and, from 2003, Lynx started offering retrofit reversible cooling fans. To celebrate its 30 years in business, the company is fettling one of the first tractor models it actively developed a front linkage and front pto for, the John Deere 6000 series

On arrival, the tractor looked complete and in good general order, a thorough clean confirming that the cosmetic condition of the tractor was not too bad.



When John Deere launched its then all-new 6000 tractor series at Smithfield, Lynx Engineering had already taken all the necessary measurements to prepare a front linkage and front pto kit to fit the tractor. So by the time UK dealers took delivery of the first 6000 series tractors, Lynx had a ready-to-go front linkage and pto kit available for the completely new range of tractors. This association is the reason Lynx decided a John Deere 6000 series would be a suitable

tractor to not just restore but also see how far it could be updated using readily available upgrades from both the company's own resources and those from outside suppliers. In a series of articles, we follow their progress, from taking delivery of a well-used 6800 through to its completion.

Getting started

Job one was to secure a suitable tractor, this proving not as straightforward as initially thought. After a few leads and fruitless

searches frustrated the project, a tidy looking 120hp, 6.8 litre, six-cylinder 6800 was located, the tractor having an original Zuidberg front linkage but no pto. Nick Ewbank suggests he may well have fitted the linkage to the tractor when it was sold new by Teesside John Deere dealers Claytons of Carlton (now part of Ripon Farm Services) back in 1995. The tractor still had the original Zuidberg and separate Lynx Engineering decals visible on its chassis rails, albeit a little battered and worn from the years of service.



Sam (left) and Nick Ewbank were all smiles at the beginning of their John Deere 6800 restoration and upgrade project. The company is planning to show off the finished tractor first at the Highland Show and enroute to the event in a 300 mile charity run from Lynx HQ and stopping off at dealers along the way.

On its arrival at Long Buckby in late summer 2021, the tractor was assessed, and the aims of the project set out. These would include updating various attachments to demonstrate how new life can be brought to a near 30-year-old tractor. Having a Zuidberg linkage already in place was an advantage, but the project will see a front pto, with current override protection, a Stoll front loader, an updated pick-up hitch and a Flexxaire reversible fan fitted as part of the restoration project. Other detail improvements will be considered to update the tractor as a part of its wider refurbishment.

Much of the restoration work has, and will be, conducted in-house, with Lynx Engineering personnel Sam Ewbank, Mark Purves and Greg Allen doing the work as and when time becomes available.

The ever evolving planned timeline

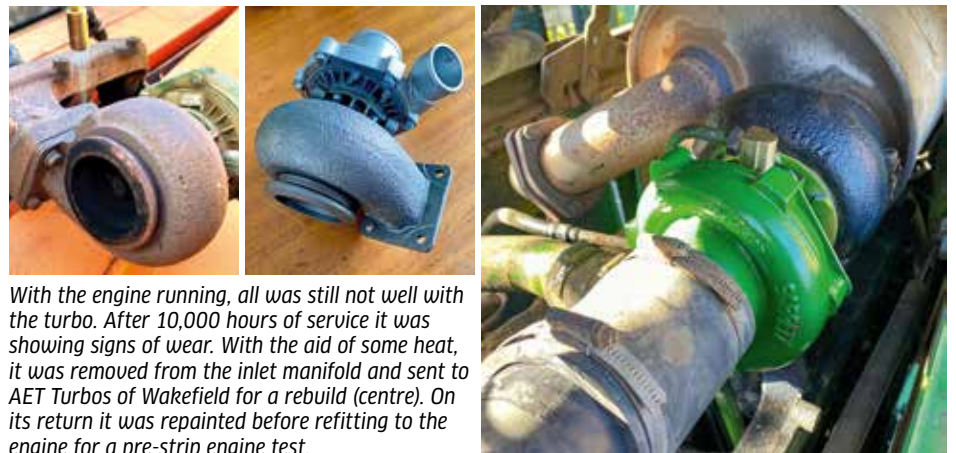
In the following pictures and captions, we outline progress to date. Some of the work listed is out of sequence, reflecting the realities of working on a tractor as and when time allows. Subsequent articles, not necessarily in this order, will cover the installation of the refurbished original front linkage, adding a front pto and refitting a rear pick-up hitch. We will then look at adding a Stoll front loader followed by another article covering the fitting of a reversible cooling fan. We plan to also look at other elements of the restoration project to include fitting wider tyres to replace the aging 420/85 R24 front and 18.4 R38 rear tyres fitted to the tractor when it arrived. The aim is to complete the restoration and rejuvenation by late spring / early summer 2022.

James de Havilland

Early engine work



A rough running engine and poor starting was initially traced to the injectors. Their removal and replacement with refurbished items, plus new fuel lines, enabled the engine to be run and checked over, but this was just the beginning.



With the engine running, all was still not well with the turbo. After 10,000 hours of service it was showing signs of wear. With the aid of some heat, it was removed from the inlet manifold and sent to AET Turbos of Wakefield for a rebuild (centre). On its return it was repainted before refitting to the engine for a pre-strip engine test.

Stripping the front linkage



Thirty years of life on the farm saw numerous nuts, bolts and pivot points resist dismantling attempts, with heat facilitating the removal of the front linkage and its separate mounting frame. The linkage was in good condition but will be refurbished with new bushes and be joined by a freshly installed front pto with override system.

Partial strip morphs into complete disassembly



The cross shaft on the rear linkage shows wear typical of this generation of 6000 series, the back end of the tractor, prior to removal, otherwise presenting in good condition.



It was not until it was completely stripped and cleaned that the extent of the work needed on the transmission could be seen. From the clutch discs through to the brake band, new gearbox parts will cost in excess of £5,000.



What started as a refurbishment project has morphed into a full restoration, with the tractor being torn down to a bare chassis. The latter has been blasted and primed ready for a repaint.



The oil in the front axle had not breached the hub seals, its black colour suggesting a lack of leaks also meant it was not checked or changed in a long time.



Although the engine has proven to be in good order, it will be given a thorough inspection before being re-fitted in the chassis. The original viscous coupled cooling fan will be replaced by a reversible Flexxaire unit.

Pre-strip appearances do not tell full story



Fitted with a PowrQuad semi-powershift gearbox, the 6800 was a high spec tractor in its day. Although the tractor drove fine, a strip down revealed the transmission needed a full rebuild to bring it up to scratch.



The Dromone rear pick-up hitch was well-worn and will be fully refurbished.



The cab interior has stood up well, with the slim pillars affording excellent allround visibility. The cab interior will be refreshed, enabling those who get a chance to sample the tractor a great insight into how tractor ergonomics, incab noise levels and overall comfort have evolved.

John Deere 6800 Lynx Engineering project:

Three Ps hold up rebuild plus another adds delays

UPDATING A CLASSIC

- ▶ **Part 1** Meet and greet
- ▶ **Part 2** Tractor rebuild and paint
- ▶ **Part 3** Front linkage and pto
- ▶ **Part 4** Loader fitment
- ▶ **Part 5** Reversible fan and pick up hitch

John Deere's 6000 series was a popular range, with many examples still at work today. The pictured example shows how John Deere green, and yellow by the look of it, has changed over the years. The team at Lynx are keen to ensure their restored JD 6800 matches the original colours.



Pandemic, parts and paint. Three Ps that, when combined, have put the John Deere 6800 Lynx Engineering project back by a few weeks. A fourth P has also got in the way. The aim for a 'perfect' result. This means we are bit behind schedule but read on and you will see the continued effort going into a project to show what can be done to update a 30-year-old classic icon

When starting any rebuild project, one element that is all too easy to overlook is the time it takes to disassemble and then assess exactly what will need doing to complete the job. After many hours of taking the tractor apart, the team at Lynx Engineering divided the project into six key elements: chassis, rear axle, gearbox, engine, front axle and cab. The list of items to be replaced, refurbished or

discarded grew, as opposed to shrank, as the project has progressed.

An ever-growing list of parts was drawn up, and orders placed, only to be stymied by lead times and supply chain problems. Time started to slip away, meaning the project is not quite where we expected it to be just a few weeks ago. The team are getting there, with some problem areas, such as sourcing a cross shaft for the rear linkage, resolved.

Some of the work previously outlined has now been completed, with details of more recent tasks as listed in the pictures and captions. At the time of writing, key 'large lumps' were ready for painting, with the hope that work will now progress to allow completion if not for early summer then at least in time for display at one of the key agricultural shows later in the season.

James de Havilland



The cross/rocker shaft, that connects the upper arms of the three-point linkage, had severely worn splines (inset). A replacement part was listed as available from a pattern parts specialist for around £500, but after two months of waiting and still no sign the decision was made to purchase the genuine part which was in stock but with a significantly higher price tag.



As part of the gearbox rebuild it was discovered the brake band had failed causing much of the damage within the transmission. Original 6000 series brake bands are no longer available but fortunately one from the newer 6030 series can be adapted to fit, with the added advantage of providing for a more robust repair. This is what is now nestling inside the fully refurbished gearbox.

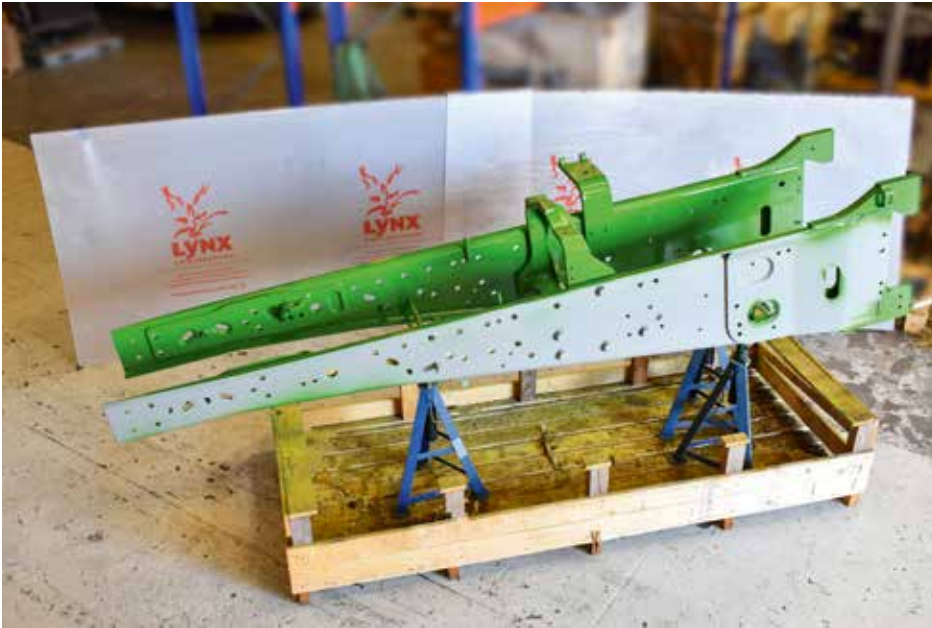
The engine has been stripped of all ancillary items and readied for painting, to include blasting the rocker box. It was decided not to strip the engine or disturb the head gasket as the engine now runs well and on close inspection is leak free too.



The back end required replacement of the main lift ram spigots due to a lot of wear. Luckily, they gave up with too much a fight and were removed without need for heat. The main lift rams are with a local hydraulics specialist for a rebuild to include new seals.



All painted metal, to include the bonnet, side panels, front fender mounts and rear mudguards, will be or have already been shot blasted and primed in a two-pack epoxy primer ahead of having a topcoat of JD green applied. Opting for a high-quality primer will ensure the new paint has high adhesion and will provide a good base for the colour coat. Talking of colour, John Deere green from the 1990s is a different shade to that currently in use. After asking for the paint RAL code from a friendly John Deere dealer, the team were informed that it the colour is just "John Deere Green". A colour match was taken from the inside of one of metal side panels of the tractor, a paint specialist then taking a scan. This will ensure the finish is correctly matched to the production colour applied to the tractor when new.



As shown in the previous article, the chassis has now been painted on the inside prior to the other main components being sprayed and installed. This is to ensure everything will be painted correctly in all the difficult to access areas before the re-painted main components are bolted back into the chassis.



All the metal oil pipes that will be reused on the tractor have been given a flush. The dirt that came out from all of them was a reminder that cleaning forms an important part of a tractor rebuild.



Cleaned and being readied for bead blasting, the rear axle has been inspected for damage and wear. It was in good overall condition.



Popping off the lever knob end caps enables the nuts that hold them in place to be removed. The various knobs within the cab are in varied condition, a decision on what to renew being left until later in the project.



Removing the cab was a mix of the straightforward and nail biting, various cables and wiring being secured by all too easy to overlook clips and clamps. The cab will be subjected to a retrim, the original soundproofing material having degraded over time.



A surprising number of parts for the rebuild were available 'off the shelf' from John Deere.



A Flexxair reversible cooling fan will be fitted in place of the viscous coupled original. The latter and the entire cooling system was found to be in good order, although the coolant drained from the system had clearly not been changed in many years.

Lynx Engineering project John Deere 6800:

Front linkage and pto...

... are ready to fit, but the tractor itself is still in pieces, albeit starting to reach the stage where these are in large lumps awaiting reassembly. So many refurbishment projects do not run to an expected timeline, and this has certainly been the case for Lynx Engineering and the company's John Deere 6800 tractor project.

UPDATING A CLASSIC

- ▶ Part 1 Meet and greet
- ▶ Part 2 Tractor rebuild and paint
- ▶ Part 3 Front linkage and pto
- ▶ Part 4 Loader fitment
- ▶ Part 5 Reversible fan and pick up hitch

At this stage of the JD 6800 rebuild, we had hoped to bring news of fitting a new Zuidberg front linkage and pto package, but whilst the 'kit' is ready, a great deal of work that was not in the original plan has had to be carried out. Far more has needed attention since the previous article. In chronological order, work has been done on the rear linkage, rear and front axles, axle hubs, engine auxiliary belt tensioner, running gear assembly plus a lot of extra cleaning, blasting and painting. This and a lot more besides needed to be fitted in between normal work with the added complication of Lynx attending various shows up and down the country. In the following pictures and captions, the projects progression is outlined with completion looking set to accelerate over the coming weeks.

James de Havilland

The rear linkage rams had enough wear to make re-bushing (inset) and fresh seals worth doing. The latter was undertaken by established Lynx hydraulic hose suppliers, Midlands Power and Motion, the repaired rams then being shot blasted and primed alongside other components.





Once checked and re-assembled, the rear axle face was primed ready for paint with the joint surface masked off and cleaned for a leak free seal when refitted.



A rear axle leak needed to be sorted out, with one of the hose connectors on its last legs (middle). It was also found that there was an odd noise coming from the hydraulic pump when turned by hand. With the axle split, it was found the pump's oil guard had failed at some point but had been repaired (left). The guard cannot be purchased separately. Deere specialists at Cornthwaites suggested the guard could make a noise even when new, further examination showing the original repair had not included cleaning out swarf and fragments (right). Although scruffy, the existing weld repairs were sound and the gears were in decent condition so the the axle was reassembled and the halves re-joined using Loctite 574.



One of the pivot points for the auxiliary belt tensioner needed to be replaced, the pivot point having been eaten into by worn bearings. The rest of the system and bracket were sound. This wear is not repairable and is normally remedied by replacing with a complete tensioner kit. A local engineering firm made up a new pivot, and had it hardened. Once new bearings were sourced, the pivot was good as new. A full replacement kit would have cost in the region of £600 plus.



New track rod end boots, track rod adjuster joints and new pivot bearings were fitted to the front axle. Previously removed hubs filled with dirty black oil but no defects inside they were reassembled and will be colour matched with new wheel rims.



With the roof removed for painting, the sagging headlining was easier to get at but a new 'non-sunroof' replacement is no longer available. A fabric matched replacement will be sourced from either a UK or US based upholsterer and is yet another point that is holding up the build. Once all the sensitive parts and electrics are removed or covered, the cab will get a thorough clean.



Greg Allen, a key member of the restoration team, has primed and painted all major and minor parts and installed new perishables, such as new mounts. Correct cap head chassis rail bolts have replaced hex head items, that were not of the correct hardness, and have been, like refitted bolts, torqued up as per the workshop manual. Attention to detail should ensure the finished tractor looks and 'feels' like it did when new.



Despite the 6000 series now being over 30 years old, a new Stoll loader can be fitted, the pictured kit awaiting special 'yellow' decals for when it gets partnered with 'Project 68'. The headstock will need painting, as it is finished grey rather than the black that would have been applied when the tractor was new.



Refurbishing the original Dromone pick-up hitch is underway, this well-worn item needing a great deal of TLC to bring back to as new condition. The Flexxaire Fan will be measured up once the engine and radiator are installed.



Cornthwaite
GROUP

- ORDERING PARTS MADE EASY -

Looking for spare parts for your farm machinery?
Or need a specific part for a restoration project?



Just contact our Digital
Parts Representative,
Hannah Lawrenson on:



parts@cornthwaitegroup.com



07494 101227

ebay

Check out our
ebay shop - new
items added
every day!



Over £4.5 million parts in stock for new models
& older ones too!

www.cornthwaitegroup.com

Lynx Engineering project John Deere 6800:

All finished now, but why so late?

UPDATING A CLASSIC

- ▶ Part 1 Meet and greet (*profi 5/2022*)
- ▶ Part 2 Tractor rebuild and paint (*profi 6/2022*)
- ▶ Part 3 Front linkage and pto (*profi 9/2022*)
- ▶ Part 4 Getting it back together (*profi 3/2023*)
- ▶ Part 5 Reversible fan and pick up hitch (*profi 4/2023*)

If you visited LAMMA, you would have been able to see a shiny, 30-year-old, John Deere 6800 tractor on the Lynx Engineering stand. This is the tractor the company has restored and modified as part of the project we began to cover last year, the original aim having been to follow the rebuild month on month to its projected completion last summer. By the time you read this the original deadline had clearly been missed. Here we outline why.

Difficulties sourcing certain parts, matching the original paint finish, deciding what to repair, replace or update plus fitting the project work into a normal working day are part of the reason why this Lynx Engineering project took a lot longer than initially expected. There was also the need to focus upon the key aim of demonstrating how a tractor made 30 years ago could still be fitted with a new loader and other modern-day equipment to make it a viable working tool.

Bigger tyre conundrum

As the project progressed, the subject tractor turned out to need much, much more than just a service and a quick lick of paint ahead of being updated. The resultant full mechanical strip and subsequent rebuild was not part of the original plan. A further complication was the desire of the team to fit the tractor with more modern tyres. A simple job, you would think, but one that caused a few headaches and delays. This was largely down to needing to ensure the correct drive ratio between the front and rear axles.

The Lynx team had to work out the latter for themselves, the selected tyre sizes not being available when John Deere launched the 6800. With no data available, it was necessary to measure the larger tyre's actual circumference and use these figures to see if they delivered the correct front and rear axle ratios. On paper, this should have been



Fitted with taller and wider BKT 540/65 R28 and 650/65 R38 tyres, the completely refurbished Lynx John Deere 6800 certainly looks the part, particularly in comparison to how it arrived in October 2021. The original aim was to demonstrate how an aging tractor can be updated to match current demands, but the desire to get the tractor right saw the project take longer than planned. Next month we will look at some of the costs involved including fitting the various upgrades.

simple but it proved the opposite, the more so as new rims to accommodate the tyres also had to be fabricated.

Self-control and details

A further problem was knowing when to stop fixing things, the tractor presenting well when it arrived in the yard back in late 2021 but revealing a host of hidden horrors when it was stripped down for repainting. Some of the problems encountered have been documented in our previous articles, but the point is that some jobs that arose took longer to resolve than anticipated. Then another issue raised its head, namely the desire to do

the job properly. In the end, the tractor was completely rebuilt, with only the main lump of the engine not being stripped. A compression test suggested the basic power unit was in good shape, so just the turbo and fuel system were refurbished. The tractor will be dyno tested at some point to ensure all is well.

Then there were the detail points. A simple example? One of the tractor's rear lights had the original lens replaced with a non-OEM item. It did the job and, to a non-critical eye, was good enough to keep on the tractor. When illuminated, however, the pattern part was noticeably different in colour to the JD

original and the design of the reflector was not quite the same either. The lens was replaced with a new original, this attention having been carried over to a whole host of other parts that were replaced when subjected to similar scrutiny. This included various switches, lever controls knobs, wiring clips, trim items, decals and a host of other small items. If something did not meet OEM design and quality, it was replaced. Totally unnecessary for a tractor being refurbished for work on farm. Absolutely vital to the Lynx team who decided to invest the time and money to get the tractor 'right'.

At this point, there will be those that argue fitting new wheels and tyres and some other upgrades goes against this desire for



On arrival back in late 2021, the 6800 was fitted with 16.9 R24 and 18.4 R38 (metric equivalent 420/85 R24 and 480/85 R38) tyres. Fitting larger tyres transforms the overall look of the tractor, but other changes have also been made to bring the tractor up to date.

originality. The modifications Lynx has made are all reversible, however, and all fit in with the original brief to bring an old tractor up to meeting the demands of a current user. As the project progressed, it was clear the desire to produce a good restoration had overtaken the aim of just getting the tractor presentable so it could be modified.

At this stage, we could attempt to list all the work done to complete the tractor. There is not enough space. Just consider one aspect of the rebuild. Sam Ewbank spent more time than he would care to mention refurbishing the cab trim parts with a small bottle of specialist agent to seal some of the dashboard plastic so it could be airbrushed back to its original colour.

Dealing with penny counting

As tractors age, the maintenance they receive tends to drop off, just at a time when a little extra care would return the investment by increasing the machines longevity and reliability. Clearly, the subject 6800 had been relegated to secondary duties some years ago and with it servicing and care had also taken a back seat. There were numerous mods and repairs that 'did the job' at the time but some needed to be reversed. This work was not factored-in to the original build time.

The more heartening news is that John Deere service parts were generally readily available from the company and its dealers, with specialist help from suppliers enabling more obscure items to be sourced. Where some items were no longer readily available, a solution was found, sometimes using parts John Deere themselves had upgraded to a

new design or doing an internet search and scanning Ebay. Parts sourcing took time and was compounded by the difficulties related to the pandemic.

One subject that has not been raised is cost. Lynx boss Nick Ewbank is candid in his response to what he thought he was going to pay to get the project completed and how much it cost to do the work. Some replacement parts were more costly than anticipated, such as the rear linkage cross shaft. Other jobs, such as the new wheels and tyres, came in 'on budget'. But discounting labour, the project cost perhaps double what was expected. We will list some of the pricing in the next instalment.

Was it worth it? Put this another way. To buy a new tractor of the same spec and power would cost a lot more than the total investment made in this project. To suggest a 'refurbished' tractor is as 'good' as its modern equivalent is not really the point. The restored 6800 is now a serviceable tractor that can be maintained and repaired without the need for specialist tools and expertise. It comes from a generation of tractor that did not need to meet tough emission standards and is free from modern electronics and software control.

This does not mean it is too old fashioned to have further upgrades. A retrofit auto steering kit is being considered, for example. The acid test will be to see how the tractor drives and works with its new Stoll loader with electronic controls. Our final update in next month's issue should answer a few of these points.

James de Havilland



The engine, gearbox, axles and chassis were resprayed 'in-house', this also allowing various items to be repainted as appropriate as the rebuild progressed.



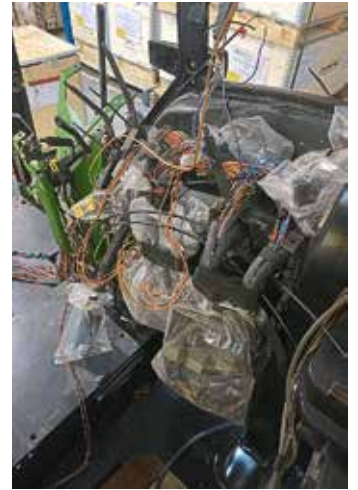
Moulded plastic parts are not easy to replace if damaged, with certain items needing to be repaired ahead of refitting. A great deal of time was invested in cleaning removed items, the quality of the original parts enabling them all to be reused on the finished tractor.



The cab was completely stripped, the frame receiving a fresh coat of black paint matched to the factory original.



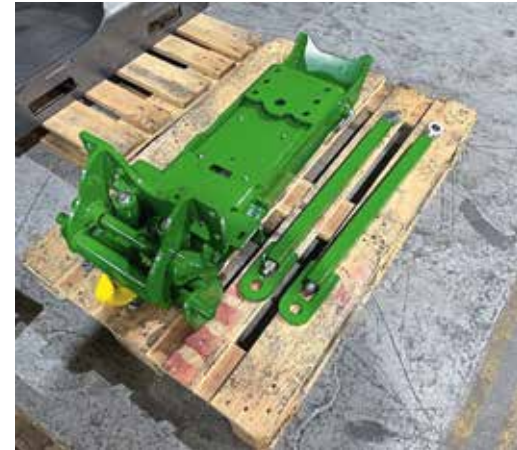
Notes of parts needed to refurbish the cab interior included sourcing new control lever caps from John Deere. Although the cab plastics were complete, a great deal of effort went into cleaning, strengthening and refinishing worn areas to give an 'as new' finish.



Although tractors made back in the 1990s have fewer electronics, that is not the same as suggesting the wiring looms are simple. Once internal cab cladding was removed, the amount of dirt found underneath reflected the tractor's hard life, all key connectors and fuses being covered ahead of a comprehensive clean.



The dash binnacle was in good condition, with the instrument cluster responding well to a thorough clean. The scratched and faded Perspex was replaced and is now as clear as it was when new. The raised and white lighting and wiper symbols needed to be repainted, with certain areas of faded plastic being treated ahead of being airbrushed back to the correct colour. Restoring the areas the driver 'sees' was time consuming but just as important as getting the mechanical elements of the build right.



The original plan was to refurbish the worn pick-up hitch in-house, but Dromone offered to do the work in the factory, returning the unit in as new condition. Note the attention to detail, the hitch hook being finished in yellow as it would have been when fitted originally.



Carrying out a tractor rebuild in a working warehouse was far from ideal, the project having to be completed on an 'as and when' basis and at weekends. This picture was taken in the first week of December 2022. By the 16th of the month, the tractor was completed, thorough parts preparation and careful note taking helping to ensure the rebuild could be carried out smoothly.



A 'dry room' was fabricated to house freshly painted parts to ensure they were protected up until the point of fitting. Easily lost or damaged components were also stored this way, taking pictures of removed bits and pieces where they were left helping locate them as the tractor was reassembled.



Completely refurbished to 'as new' condition, the rear linkage has quick couplers and a ball hitch fitted to bring it up to date.



If you had jumped into a cab of a new 6000 series tractor thirty years ago, this is what would have greeted you with a notable exception. An electronic joystick for a front loader. A key aim of this project is to show an older tractor can be modernised to make it a viable working tool.

TAKE YOUR TRACTOR INTO NEW TERRITORY WITH LYNX



Lynx is changing the landscape of tractor performance. Whatever the make or model, our implements and accessories can take your tractor's versatility and productivity further than ever before. Go above and beyond with Lynx.

- FRONT LOADERS ■ FRONT LINKAGES ■ FRONT PTOs ■ WEIGHT PACKAGES
- RUBBER TRACKS ■ FRONT PRESSES ■ PICK UP HITCHES ■ ENGINE TESTING & TUNING

MORE WAYS TO ADD MORE PRODUCTIVITY

For further details about the Lynx range, call Lynx Engineering today on 01327 843215 or visit www.lynx-engineering.co.uk



Lynx Engineering project John Deere 6800:

Updated classic ready for work...

UPDATING A CLASSIC

- ▶ **Part 1** Meet and greet (*profi 5/2022*)
- ▶ **Part 2** Tractor rebuild and paint (*profi 6/2022*)
- ▶ **Part 3** Front linkage and pto (*profi 9/2022*)
- ▶ **Part 4** Getting it back together (*profi 3/2023*)
- ▶ **Part 5** Reversible fan and pick up hitch (*profi 4/2023*)

John Deere tractor purists will no doubt spot the odd 'non original' change to the Lynx Engineering JD 6800. As outlined from the outset, the primary aim was to breathe new life into a 30-year-old tractor and show how sensible upgrades could bring it up to meet current demands. The quality of this rebuild, however, is exceptional and it is the high standard of finish that most remark upon when they see the tractor in the metal.

Front linkage

Working back, the new style Zuidberg front linkage, with a nominal capacity 2.8 tonne, is essentially much as it was when fitted, probably by Lynx boss Nick Ewbank, back in 1992. It is, however, a new linkage and fully up to date to allow a new 1,000 rpm front pto to be installed. This benefits from automatically modulated engagement that would not have been offered when the tractor was new. The linkage hydraulics are plumbed in to the number one rear service to be used to raise and lower the arms.

Front loader

Moving now to the loader, it is worth noting that the new Stoll ProfiLine FZ 43-27 would have been a significant upgrade to front loaders on offer back in 1992. Fitted with mechanical parallel lift and with a nominal lift capacity of up to 2,660kg, the loader benefits from modern proportional control, the in-cab

... but will this pristine fully updated and restored John Deere 6800 ever put its 120hp six-cylinder engine back into daily action? It would be a shame if it didn't but equally a pity if it does. The tractor is finished to an exceptionally high standard, a few days of hard work no doubt spoiling its pristine finish. As it is, the tractor's future will be determined over the coming months.



Back in 1992, the John Deere 6800 had a great deal to offer, its 120hp six-cylinder engine and 16-speed PowrQuad semi-powershift transmission remaining 'on the money' for many users today. Those seeking to press a refurbished model into front line use will have the benefit of readily available options to update the tractor.



electronic Pro Control joystick replacing what would have been a long lever working Bowden cables.

Additional loader refinements include Comfort Drive boom suspension, Hydro-Fix quick-coupling, improved tilt and crowd angles, easier fitting and removal and a stronger build. Current Stoll loader attachment brackets are readily available for this generation of John Deere tractor but may need a bit of lead time for delivery as they are not stocked by Lynx in the UK.

Dealing with dust

One problem with a front linkage can be that using it with kit such as a mower can lead to dust and debris blocking the radiator. Back in the '90s, the tractor driver would soon learn to periodically clean the front grills in-work to prevent engine overheating problems. There should be no such problem with the project John Deere 6800 as it is now fitted with a Flexxaire reversing fan with variable pitch blades. The blades, when required, are angled to reverse the air flow to 'blow' the radiator and screens clear of debris. The new fan is noticeably quiet in operation, with the system featuring an automated timer to reverse the fan periodically with no need for the operator to do anything. This is a really good upgrade and one that is well worth considering on any tractor.

A separate controller and hydraulic pump control the Flexxaire fan, with an adjustable setting to set the frequency and duration of reversing the fan blades to clear the radiator. When running, the fan typically makes less noise, and draws less power, than a standard viscous coupled design.



The problem with comprehensively cleaning and refurbishing a tractor is that there is a temptation to keep everything in pristine condition. Under the polythene, the driver and instructor seats are in as new condition.





The Zuidberg front pto kit was added to complement the refurbished front linkage and benefits from a 'soft start' engagement system. Note the pick-up hitch hook mounted to one side, with space for the drawbar or ball hitch on the other.



The front linkage mounting brackets bolt directly to the chassis of the tractor, with large lift rams ensuring the nominal 2.8 tonnes of lift is delivered swiftly. With around 100hp available at the pto, this set up will easily handle a 3.0m front mount mower.

Getting hitched

The Dromone push-back pick-up was sent back to the factory in Ireland for a full rebuild and was returned with new drawbar and hook ends plus a D80 Drawball fitting. These attachment options are easier to swap over than would have been the case with the original designs, the Lynx team fitting brackets at the front of the tractor for the stowage of the fitting not in use. Finally, we move to the tyres and wheel rims. Radial 16.9 R24 and 18.4 R38 tyres were fitted by John Deere to the 6800 from new, with replacement BKT 540/65 R28 and 650/65 R38 rubber and wider rims to cope coming from farm tyre supplier Sam Moreton and Sons. Take a look at the tractor's front mudguards and you will note they cover the width of the wider front tyres, with extensions doing the same job at the rear. These OEM parts are the same as those fitted to later 6000 series tractors.

A little bit of history

The tractor was originally sold by the Stockton-on-Tees branch of John Deere dealer Claytons by Andy Whitfield. He recalls the first owner bought the 6800 following him taking it out on a ploughing demo. Andy says he subsequently took the tractor back as a part exchange, selling it on again to its second and third owners, the latter in turn selling it to Lynx. It is hoped the tractor will be reunited with its former keepers at some point. Originally used for mainly arable duties, the tractor took on general farm work over the years, with a total of just over 10,000 hours on the clock some 30 year later. As mentioned at the outset, the tractor is now ready for work, Lynx planning to carry out an engine dyno test at some point to ensure it is up to its best. In the meantime, the tractor will be on show at various events up and

OUTLINE COSTS

Lynx Engineering project John Deere 6800

Original tractor	£17,000
Professional body panel respray	£4,000
Paint for in-house painting	£500
Gearbox rebuild (parts)	£5,000
Rear linkage parts and refurb costs	£800
Front and rear axle rebuild parts and refurb cost	£1,000
Engine injector and pump repairs	£600
Turbo rebuild	£900
Cab headliner	£500
New wheels and tyres	£6,500
Flexair fan kit plus fitting	£3,000
Stoll FZ43-27 to include attachment brackets	£14,500
New Zuidberg front linkage	£3,100
New front pto	£3,440

Prices have been rounded for convenience

down the country. If you get a chance to look it over, note some of the details such as under the cab and around the gearbox drive shaft. A tremendous amount of cleaning and refurbishment has been carried out under the bright new paint. The tractor stops and starts,



Modern Stoll ProControl joystick does not look out of place in the cab, the tractor's ergonomics standing up well when compared to a current tractor model. The build quality of these John Deere tractors was good, although heavy-handed fiddling with the dash vents could see them break. For the most part, the majority of the cab fittings are the originals.



Even by current standards, the near 6.8 tonnes of rear lift capacity is decent although the rear pto offers no ECO speed settings. Note twin lift rams and both lower links having height adjustment. Side and rear fender extensions are not original but are OEM Deere and necessary to cover the fatter rear tyres.



Hydro-Fix quick coupling was offered back in 1992 but the current design also incorporates the electronics. The loader is plumbed into the rear spools and shares its circuitry with the front linkage. Comfort Ride boom suspension is fitted to the Stoll ProfiLine FZ43-27 loader.

TAKE YOUR TRACTOR INTO NEW TERRITORY WITH LYNX



Lynx is changing the landscape of tractor performance. Whatever the make or model, our implements and accessories can take your tractor's versatility and productivity further than ever before. Go above and beyond with Lynx.

- FRONT LOADERS ■ FRONT LINKAGES ■ FRONT PTOs ■ WEIGHT PACKAGES
- RUBBER TRACKS ■ FRONT PRESSES ■ PICK UP HITCHES ■ ENGINE TESTING & TUNING

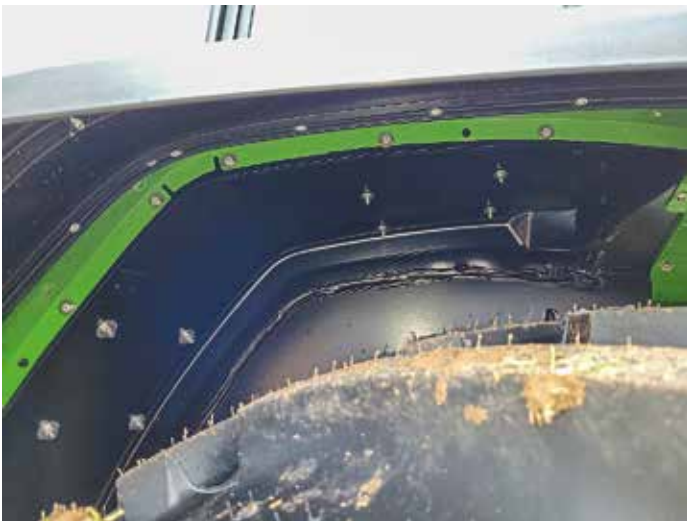
MORE WAYS TO ADD MORE PRODUCTIVITY

For further details about the Lynx range, call Lynx Engineering today on 01327 843215 or visit www.lynx-engineering.co.uk





A solid roof, without hatch, is less common which in turn led to problems when it came to sourcing a new headliner for the cab. Note the amber beacon folded down beside the cab and the almost dainty exhaust stack. Visibility from the 6800 cab is excellent.



No speeding on the drive to take the tractor's pictures, the underside of the mudguards remaining spotless. Here is further evidence of the tractor having been treated to a thorough renovation to as-new condition.



MF906PEF had three previous owners, the tractor serving on farms for nearly 30 years. If it is pressed back into service it could well do the same again. Note decals thanking those who helped support the tractor's restoration.



Sam Ewbank, Mark Purves and Greg Allen carried out the tractor's refurbishment in-house, putting in many hours outside work. Their attention to detail needs to be seen at first hand, with even the bonnet support brackets being passivated to replicate the original bronze finish on the steel.



changes gear and steers as well as it looks, with the in-cab controls having that precise feel you get with a well-engineered and maintained tractor. Of course, a new John Deere R will feel even more refined but few would baulk at being asked to spend a long day in this restored 6800.

James de Havilland

LYNX ENGINEERING WOULD LIKE TO THANK THE FOLLOWING SUPPLIERS FOR THEIR HELP AND SUPPORT:

- John Deere UK
- Dromone Engineering
- Cornthwaites
- Sam Moreton and Sons
- Stoll
- Zuidberg
- Flexxaire