



AS AT 15 SEPTEMBER 2021

Lot No: 0013	ALREADY SPONSORED	LHS cylinder front relief valve		Lot No: 0014	Total Cost: £1000	Total No of Units: 4	Unit Cost: £250	LHS cylinder rear relief valve
Lot No: 0015	ALREADY SPONSORED	RHS cylinder front relief valve		Lot No: 0016	Total Cost: £1000	Total No of Units: 4	Unit Cost: £250	RHS cylinder rear relief valve 3 of 4 units available



Details:

Like all the fittings our locomotive lost its original cylinder relief valves when it was at Barry scrap yard. We have been fortunate to obtain some original parts but they will need refurbishing and new components making before they can be fitted to the locomotive.

The cylinder relief valve is designed to stop the over-pressuring of the cylinder which is usually caused by water being drawn into the cylinders (called priming).

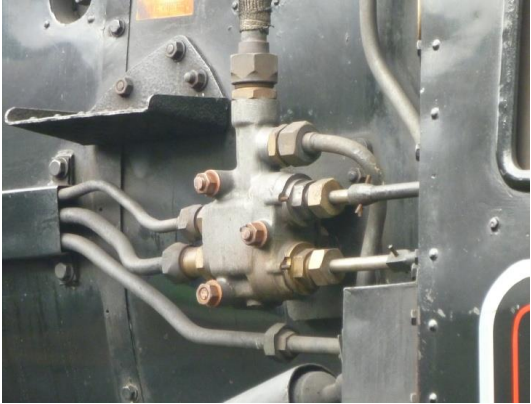
The pressure is set approx 15 PSI higher than the maximum boiler pressure so under normal circumstances they remain closed. If the pressure exceeds this then they open releasing the build up of pressure and preventing any damage to the cylinders and motion.

Hence they are a very important fitting that can save the locomotive from tens of thousands of pounds of damage.





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Lot No: 0019	Total Cost: £650	No of Units: 2	Unit Cost: £325	Ejector Duplex control valve casting
				<p>Details:</p> <p>The Ejector duplex control valve is fitted just forward of the LHS of the cab. This item controls the steam supply to the small and large ejector of the vacuum brake system on the locomotive.</p> <p>We have been fortunate to obtain a casting from an existing pattern which has saved us the cost of having a new pattern made. This sponsorship item covers the cost of the purchase of the casting but it will then require machining before it is able to be used on the locomotive (see Lot No 20)</p>



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Lot No: 0020	Total Cost: £1000	Total No of Units: 2	Unit Cost: £500	<p style="text-align: center;">Ejector Duplex control valve machining</p> <p style="text-align: center;">1 of 2 units available</p>
<p>Details:</p> <p>The Ejector duplex control valve is fitted just forward of the LHS of the cab. This item controls the steam supply to the small and large ejector of the vacuum brake system on the locomotive.</p> <p>We already have the basic casting, this sponsorship covers the cost of having the casting machined together with making all the internal and external fittings required before the valve can be used.</p> <p>In addition to the machining of the main casting two valve stems need to be made which will attach to the new handles in the cab. Gland nut assemblies and the pipe unions will also need to be made.</p>				



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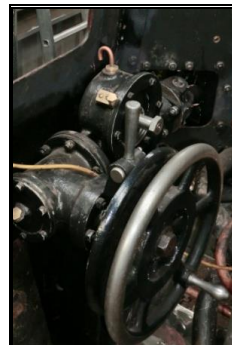
Lot No: 0033	Total Cost: £10,500	No of Units: 75	Unit Cost: £140	Reversing gearbox	45 of 75 UNITS NOW SPONSORED
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Details: When it comes to replacing components on the locomotive this item is the most complex of the main parts missing. Unfortunately, whilst at Barry scrap yard there were instances during the early 1980's of lots of components being stolen off locomotives. 76077 was one of the unlucky locomotives that suffered as a result of the thefts. Rumour has it that, although the person was caught, the parts were just thrown into the scrap pile never to be seen again. Having tried to find out if a spare reverser exists in someone's collection, the only obvious solution open to us is to construct a brand new one.

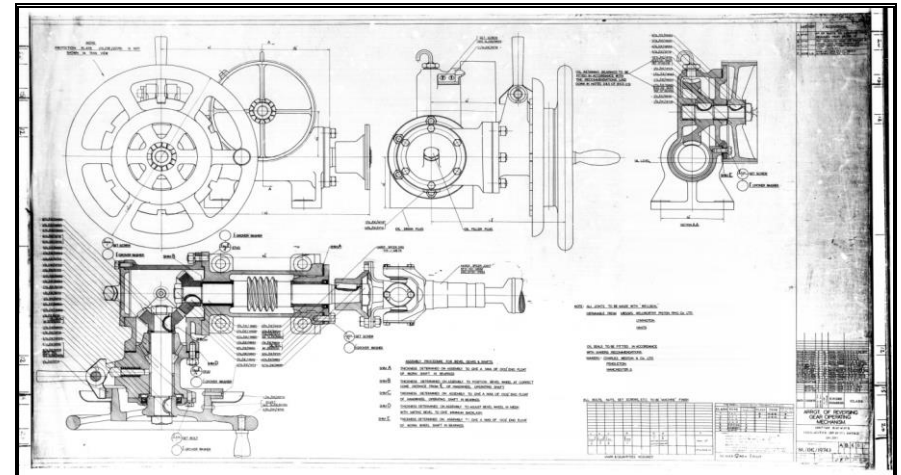
For those of you who don't know, the reverser controls the valves of the locomotive and through these regulates the amount of steam that enters the cylinder based on the percentage of the piston's stroke.

When starting a locomotive, the reverser is set to 75% meaning that steam is admitted to the cylinders for 75% of the stroke. When a loco is running fast the reverser could be set as low as 15% where just a short burst of steam keeps the loco moving along nicely.

The other main task, as its name suggests, is to control the direction of the locomotive.



To build a new reverser will be challenging, there are several gears that will need to be cut and complicated threads to be machined. We are fortunate that patterns exist for the body, handle and indicator drum. The CLAN group building a new Standard locomotive have already had items cast for their reverser we hope to be able to work with them to mutual benefit.



As this is a high value item, we have split the total cost into 75 segments, one for each % of the piston stroke controlled by the reverser. You can purchase as many segments as suits.

Completing this item will be a major step forward in 76077's restoration.



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Lot No: 0047	Total Cost: £850	No of Units: 2	Unit Cost: £425
Left driving wheel brake hanger			
The left driving wheel brake hanger attaches to the frames just forward of the wheel via the brake hanger bracket.			
Lot No: 0048	Total Cost: £850	No of Units: 2	Unit Cost: £425
Right driving wheel brake hanger			
The right driving wheel brake hanger attaches to the frames just forward of the wheel via the brake hanger bracket.			

Driving Wheel Brake Hangers

Their purpose is to hold the brake block in position and transfer the movement of the brake linkage to the block and push it into contact with the wheel



Details: The bottom of the hanger is attached to the brake crossbeam, this in turn is attached to the steam brake cylinder, via linkage which ensures all the brake blocks operate together. Unfortunately both of the driving wheel brake hangers were removed from the locomotive at Barry scrap yard, presumably as replacements for other preserved locomotives.

These items were originally forged however we plan to replace them with profile cut and machined steel ones.



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Lot No: 0049	Total Cost: £880	No of Units: 2	Unit Cost: £440
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Spare driving wheel spring No 1

The driving wheel springs are the main form of suspension on the locomotive; they are attached to the bottom of the axle box, to support the required weight and thus ensure each wheel keeps in contact with the rail when undulating track is traversed.

Lot No: 0050	Total Cost: £880	No of Units: 2	Unit Cost: £440
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Spare driving wheel spring No 2

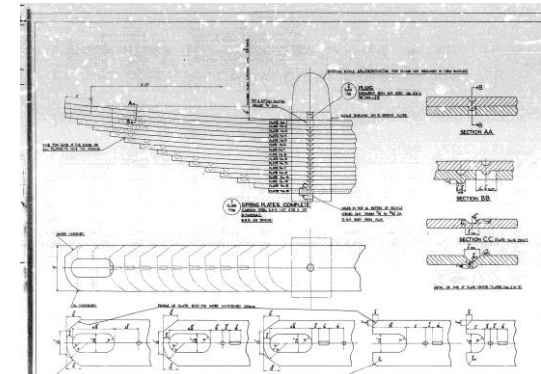
Spare Driving Wheel Springs

Details:

We have the original six springs which have been refurbished but require two spares for when we start to operate the locomotive.

These springs do fail quite frequently (the leaves crack through), it can take up to 6 weeks to have them repaired so if we don't have some spares the railway can't use the loco and TSLL will lose valuable income.



The springs are deemed consumable items that are normally replaced at the railway's cost but TSLL must have a stock of spares ready for when they are required.



By sponsoring these components you will be helping to ensure 76077 has a high availability to the GWSR.



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Lot No: 0061	Total Cost: £250	No of Units: 1	Unit Cost: £250	Injector water valve adaptors	Lot No: 0062	Total Cost: £250	No of Units: 1	Unit Cost: £250
<p data-bbox="344 644 524 676">No 1 adaptor</p>  <p data-bbox="143 1251 725 1331">The No 1 injector water valve adaptor is attached to the front of the No 1 injector</p>				<p data-bbox="786 587 887 612">Details:</p> <p data-bbox="786 660 1447 804">The injectors on a steam locomotive are used to put water into the boiler. They are very important items that must work correctly when tested otherwise the locomotive can't be used.</p> <p data-bbox="786 852 1424 948">We already have the injectors for 76077 but now require some of the smaller parts that make up the complete system.</p> <p data-bbox="786 995 1447 1171">The water valve adaptors connect the water valves to the injector enabling water from the tender to enter the injector when the valve is operated from the cab. They are cast from bronze and must be machined to fit both the injector and the water valve flanges.</p> <p data-bbox="786 1219 1435 1315">Located under the fireman's side of the cab these parts are in a prominent position and can be easily identified.</p>	<p data-bbox="1733 628 1912 660">No 2 adaptor</p>  <p data-bbox="1532 1267 2114 1347">The No 2 injector water valve adaptor is attached to the front of the No 2 injector</p>			



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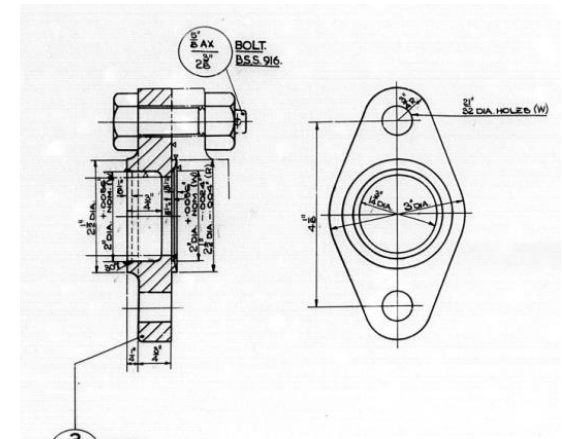
Lot No: 0065	Total Cost: £600	Total No of Units: 5	Unit Cost: £120 per pair	Ejector Duplex control valve machining 1 of 5 units available
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Details:

The pairs of steam heating pipe flanges are silver soldered to the ends of sections of copper pipe which make up the complete steam heat pipe, running throughout the length of the locomotive and tender.

The steam heating pipe feeds steam to the radiators in the coaches located under the seats throughout the train. In total, 5 pairs of these flanges are required.



The flanges are cast in bronze and machined to fit the copper pipe and mate with each other. Holes are drilled either side of the main pipe bore to enable the flanges to be bolted together.

It may seem that we are premature in requiring these items, but the first two sections of pipe need to be fitted prior to wheeling the chassis.

These are not glamorous items but are essential and affordable, when sponsored you will have the satisfaction of knowing that you are helping to keep passengers warm.