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Engine Drive Hose Reel Service List

Essential Pre-Winter Checks:

1. Drain water from the Hose Reel with the use of a compressor [recommended method and this requires 6-10 bar pressure], connect compressor hose to inlet pipe, connect end cap onto the other side of this pipe and close the ball valve. Start compressor and press start on the computer (if fitted) or open valve. When the hose reel is drained, but **BEFORE** disconnecting the compressor release the pressure on the hose reel by opening the ball valve on the end cap. The alternative method for draining the hose reel is to pull out the hose, remove trolley/boom end cap or loosen the machine from the hose reel flange and rewind with PTO. **Refer to manual instructions.** Please note the rewind will not always be tidy when using the PTO and only adjust the guide mechanism if absolutely necessary. If adjustment is made, then it will have to be reset when the hose reel is next used. Also note that on this first pull, it must be a full run to ensure that the hose layers correctly.
2. On computer machines, remove the battery whilst the machine is being stored for the winter. (remove negative battery terminal first). Recharge the battery prior to fitting for the next season.
3. Block up the ends of hose or inlet pipe with rag or tape to prevent rodents or birds nesting.

Preventative Maintenance Schedule:

1. Check the level of hydraulic oil on the sight glass. Top up as required using Hydraulic Oil (ISO 32 or ISO 46 Biodegradable). Check for any signs of oil leaks and replace dowty seals if necessary.
2. Check condition and tension of V belt from hydraulic motor to the gearbox pulley.
3. Check Engine AV mounts for wear. Also check the earth strap from engine plate to chassis.
4. Change fuel filter element. Please see detailed instructions on engine service (refer to the manual supplied with the Hose Reel or alternatively contact Briggs Irrigation).
5. Remove the delivery in-line filter cylinder/cone from filter housing/inlet pipe and inspect for damage/holes and repair or replace as required.
6. Check the Bauer fittings both on the machine and also on the filter housing. Replace O rings or weld on new Bauer female (sockets) if required.

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Preventative Maintenance Schedule cont...

7. Remove drum water inlet elbow. Replace oil and water seals. Check circlip groove thrust bearing, washers and wear sleeve for signs of wear. Clean drum shaft thoroughly cover with grease and replace the casting ensuring that it is pushed on square. Grease bolt threads on assembly to help prevent corrosion.
8. If the gearbox oil is not clean, drain gearbox and refill with SAE 90 to the centre of the sight glass. Ensure the gearbox pinion retaining bolt is tight.
9. Remove hose rollers and roller shafts. Check rollers for wear and replace if necessary. Thoroughly grease roller shafts.
10. Check the scroll for any damage and repair or replace if necessary. Remove the scroll follower and check for any damage or signs of wear. Replace if necessary. (Note: mark the scroll follower and the housing prior to removal and make sure it is replaced in the same orientation). Replace follower circlip if necessary. Clean the scroll bar to remove sand/grit and then lightly grease. Also fill the scroll casing with grease.
11. Check Scroll Mounting bearings for any free play, tighten grub screws in the bearings and locking collars. Grease the bearings.
12. Check the grub screws in the scroll drive sprockets. Tighten the scroll drive chain by adjusting the tensioner if necessary. Lubricate the chain with chain oil.
13. Grease the main drum bearings and check that the drum bearing mounting bolts and grub screws are tight.
14. R Range only:-Remove the locking collar on the stop frame R/H mount. Slide the stop frame across to the right; grease the section, which sits inside the tube. Slide back into position and re-fit the locking collar.
15. Rotate the turntable (if applicable) as far as possible whilst continuously greasing. Check that the turntable mounting bolts are tight - Check these bolts periodically throughout the season.
16. Check the backstop for smooth operation. If necessary, remove, clean the shaft, grease and re-fit. Ensure the backstop mounting bolt is tight.
17. On machines with hand pump hydraulics, check the valve can be fully opened/closed and lubricate. Check hydraulic tank oil level and top up if necessary. Pump the legs down fully to pressurise the system and check for leaks on all joints. Replace any damaged hoses and ram seals as required. Leave legs fully up position with the piston on the oil pump in the down position to protect from corrosion. Grease the thread on the pump handle.
18. Tractor operated hydraulic rear legs, lower these in to the ground in order to pressurise the system. Check all joints and hoses for leaks, replace any damaged or leaking hoses and ram seals (if required). Raise legs fully to ensure ram is in the up position for storage.

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Preventative Maintenance Schedule cont...

- 19. R Range machines with mechanical rotation, remove the chain and clean/lubricate with chain oil. Grease the mechanical rotation gearbox, refit the chain and the mechanical rotation springs. Be careful not to overtighten!
- 20. Check brake tension and adjust to provide slight tension on the drum when pulling out. On VR machines follow the instructions on the Brake band Warning sticker positioned on the gearbox guard.
- 21. Check the shut off linkage for wear/damage – straighten/replace as required. Check movement in the stop sensor pivot arm replace the shims and roll pin (if there is excessive movement). Check all the bolts in the shut off linkage. Check if there are any signs of damage to the shut off bar and adjust the shutoff linkage and/or stopfin as required (please contact Briggs Irrigation for details). Please note the shut off mechanism must be tested on or before the first run if any of the above are carried out.
- 22. Check stub axle retaining bolts. Dismantle wheel hub and re-pack bearings with grease. Assemble hub and set bearing pre-load. Tighten wheel nuts.
- 23. If gun trolley is fitted to the Hose Reel, fully grease rear wheel hubs/stubs and ensure free rotation of the wheels. Remove front axle and wheel being careful not to lose any spacers or nylos rings. Check front wheel bearing and replace if necessary. Check Nylos rings (if fitted – only on gun trolleys from 2010-13). Check axle for wear, clean off any corrosion and then grease / reassemble. Note: Be careful with the nylos rings they should be filled with grease on the inside but must not be bent during assembly.
- 24. Check gun trolley for any damage and repair if necessary.
- 25. Check the raingun top swing arm bearings for play and replace if necessary. Fully grease the raingun.

For any other service/maintenance enquiries please contact Briggs Irrigation on:

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E-mail enquiries@briggsirrigation.co.uk

Service completed date:/...../..... by engineer name: