

1008- Chopper Service Records

Heeringa 6750

1,2

Job 307226-

3-18-20

Ser. # Z06750X502583

Eng. Ser. # RG6125H001940

Eng. Type: 6125HZ002

Current Hrs. = 6179/4480

3-2019 Hrs. = 5960/4320

Hrs. of use = 219/ 160

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Winter Service:**-1 Winter Service****-2 Main clutch repairs**

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-1 Winter Service

Reviewed Job 266743 3-25-19—Winter Service

Reviewed Job 273298 5-1-19—St. knife would not move further, knives were 5-10%, LH motor new bearings; Job

275360 @ 6003/4349 hrs. new knives in

Per Dan H. KP falls off pegs—both sides

630B input shaft bearings endplay noticed; replaced on 273761

5-3-19

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Misc. related:

Noted rodent feces in this machine but also bait at this time; no rodents found at this time

Main belt front cover off and vertical cover, cleaned as needed

Last new main belts AZ53569 3-2019 @ 5960/4320 hrs.

Water pump last new 2-2011 @ 4143/3002 hrs.; removed fill cover on engine and checked for up/down and for./rear endplay

—none found at this time; no leaks at this time

Noted main clutch and accumulator are newer—will verify at this time once new main clutch is installed

All lights checked and ok, except brake lights stay on—will replace brake master cylinder switch S35 at this time

Fan belts, idlers and tensioners all good at this time

Horn is good, safety alarms are good

Greased main belt tensioner, cleaned off existing grease, bearings are smooth, no endplay on front idler or tensioner,

Turned key on, PTO on and manually greased for over 6 hrs. to fully fill bearings and check system for leaks and operation of greaser and ok

Noted oily area at engine valve cover; replaced o-ring at elbow, also installed with silicone sealer and wiped off remaining oil stickiness

Cleaned K41 and K42 relays in box by ECU on RH rear frame rail; re-lubed connections

Cleaned and lubed LH and RH hyd. Plugs

Cleaned and lubed all plugs behind cab

Replaced top/front roller at rotary screen; drilled and greased the other 3 rollers—set .040" clearance to frame at brush; sealed over the holes; lubed tensioner bearing—is good at this time; belt is good

Tightened all charge air and coolant clamps

A/C belt is good and no leaks at aux. drive shaft at this time

Cleaned/lubed bare metals in power locker

Greased final drive couplers—all good at this time

Greased front final drives and rear hydro motors

Lubed 3 spd. Cable arm and cable end and hydro cable end

Lubed fuel tank floor—is quite thin and rusted; does have added channel to support tank and is stable at this time

Lubed engine door hinges

Noted no pigtail on MD box on this machine

Rear wheels checked for cracks and ok at this time

Noted 12 inboard weights on machine at this time

Tightened all wheel bolts/nuts and ok

Aired fronts to 34 psi and rears to 30 psi

Reinstalled air dams under coolers

Replaced brake light switch at LH master cylinder; tested brake lights and ok now; bled LH master cylinder as needed and topped off brake fluid level; tied wiring as needed

Front belt-line trim on, cover on RH rear of cab, 3 covers on over CH and retaining rod in place, RH frt. main belt cover on, lube to hinge pin, flat cover over sharpener, RH front door cover on at main belts (frt.) and 3 bolts; 2 at hinge, large shield over CH, lubed hinges

Replaced main clutch AZ56805, verified depth, piston size, noted new clutch is 5 disc and 6 plates, existing was 4 disc and 4 plates, noted height is exactly the same, inner hub is same; have photos of clutches side by side; Angle Drive gearcase so not sharp, sanded with 600 grit, installed assembly with Lubriplate grease; replaced both spanner nuts and put lock-ring in between nuts, inner nut on with antiseize, outer on with 242 Loctite; replaced outer ring gear, lt. grind to mounting area so it will seat fully on sheave, bolts in with 242 Loctite; labeled near clutch (date and hrs.)

Verified clutch travel and is 3/32"; verified accumulator is good

and ok (is newer replacement)

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Testing:

Sharpened 12 passes and verified stone endpoints and is correct

Reverser rpm = 290, correct

Set St. knife—both motors at 6.0 sec. per rev., knife sets $\frac{3}{4}$ to 1 turn CC from last tick = correct

Verified main clutch hyd. Pump pressure switch that pump comes on and goes off correctly

Checked for leaks and none found

Adjusted Y18 (1st valve slice, top, slotted screw) to 1 full turn from zero (turning CC) and verified Y19 (top of 2nd valve slice is at 3 $\frac{1}{2}$ turns) to make 630 header lowering speed correct; wrote a note near Y18 so operator can change when corn head goes on machine; have photos of label

Ran CH and feedrolls on/off and main clutch on/off several times to verify operation and is correct

Noted 2nd gear speed is 8.4 MPH at WOT

CH is smooth, all works well at this time

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Service related:

Cab filter last new 5960/4320 hrs. @ 3-25-19; recirc. Is newer; removed and cleaned both and reinstalled

LOC oil needs to be checked closely after concerns in 2019; level was correct at this time, lt. brown, fully transparent, slight black goo on bottom; drained and replaced, no metal chips/chunks found at this time, no water, replaced with new Hy-gard—5 gal.

Coolant last new 3-2018; no oil or fuel in coolant at this time, topped up as needed

Has 2) TY25879A batteries, last new 3-2019

Final oils last new @ 3-2019 5960/4320 hrs., level checked and is correct on both, lt. grn. No metal or water found; no change at this time

3 spd. Oil last new @ 3-2019 5960/4320 hrs., level checked and is correct, lt. grn. Fully transparent, no water found; no change at this time

Engine oil and filter changed at this time; warmed oil and drained, restarted within $\frac{1}{2}$ hr. and prefilled filter; last change was 5748/4166 hrs. @ 4-2018; filter on with belt and lubed

Fuel filters last new 3-2019 @ 5960/4320, no leaks this year; no water in bowl, no change at this time; pulled sample off fuel tank; no water, fully transparent, red-dyed, very good

Put 1) TY26827 Fuel Protect Keep Clean in cab, existing was almost gone; recommend 4 – 8 oz. per fuel fill

Replaced hyd. Filter, last new 3-2019 @ 5960/4320 hrs., no metal in filter, topped up hyd. Oil; oil last new 3-2019
Hydro oil last new 5300/3853 hrs @ 12-2015; drained and replaced at this time, viewed inside of tank, presence of brass particles is small amount and normal for hrs. on machine
Replaced inner and outer air filters; labeled
Scraped top aged grease out of auto-greaser and then filled unit
—4 tubes TY24416 grease

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Feed-rolls related:

Removed adaptor plate, blew out and washed out retainer pins, then lubed

Removed/replaced both rear feed-roll stops, bolts in with 242

Loctite, transferred existing shims—3 LH and 2 RH side

Greased/lubed F.R. double joints, top splines 90% at telescoping shaft/yoke; lubed all pins and splines

LRFR 90%, centered well, ferrous 4 cleaner version, bearings smooth and are getting grease

Smooth roll scraper back in and shield, bolts in with anti-seize, bolts to 80 ft. lbs.; height above St. knife is 3/16" to 1/4"

Tightened all UFFR bars, 90% bars, roll is centered well in feedbox, noted side to side endplay is .015"-.020"

LFFR is 60% ends and 90% mid-section

E-clutch air gap is .025" to .040" ; bearings are stable; noted CH output sprocket is 90%, Input sprocket to LOC gearcase is 80% ; lubed chain as needed

Replaced power down relay, labeled

Jumpered MD solenoid and verified lift is .200", clearance to stop is .015"; all screws are tight, plunger sol. Jamb nut is tight
4 shots grease to F.R. clutch

Noted no leaks on LOC gearcase at all at this time

RH F.R. gearcase plugs out/off, inspected grease inside and looks good, noted SS speedi-sleeve at RH end of UFFR is intact correctly; added 2) TY24416 grease to gearcase, put plugs back in

Torsion bar is 7050 version with Teflon pads, welded on ends and is stable; .040" from feedbox walls on each side

RH rear arm has .010" endplay and LH side has .003", both sides have welded washers and are intact on both sides, grease is coming out at rear = correct, thrust point

URFR 90% SS version, some endplay but not severe between shaft and roll, clearance to box is .020" RH and .030" LH, in box wear-plates 90%, outside of box cleaners 90% and 1/8" from feedbox wall

Welded both feed-roll spring eyelets, quenched in oil; both

springs in good condition, cleaned crop out of LH spring; set threads 1" to 1 1/2" above 2nd nut; top/front and bottom rear positions

Hardened pins on ends of UFFR shaft and bolts at torsion shaft but are welded on ends and stable

Feed-roll door closed, antiseize to all bolts

Shafts on with lube

Replaced smooth roll drive chain coupler AZ47886, bolt in with antiseize

Adaptor plate back on with anti-seize on bolts

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Cutterhead and sharpener related:

Removed and cleaned large cover over sharpener

CH shields off, top rear 80%, mid 80%, front 70%

Sp. Floor last new 3-2015 @ 5101/3907 hrs., in pos. 3, currently is 60-70%

Spun CH with belts off, bearings are smooth, no endplay found CH knife to knife clearance when received is .006" to .010", no knives are knocked back; knives are 90%; noted RH side is actually worn into St. knife somewhat from being so close; will continue to monitor over time; PwrSvr does have 5T chip Z68452 last new 2010; relay board last new in 2015; knock sensors are newer and have been repainted each season (did notice boot cracks and resealed at this time with silicone Bench tested both motors at 6.0 sec. per rev.; RH smooth, LH fairly smooth

Grind edges of row 1 and 4 off so knife sets closer

Removed/replaced top blocks and dowels on St. knife adjusters; dowels in with 271 Loctite, tightened LH St. knife adjuster 1 position from 10 pds. Rolling torque to 20-25 ft. lbs.; RH ok as is

Scraped knife bed, existing bearing strip, lubed with TY6350; sanded bottom of St. knife and lubed

St. knife is 80%*/0%

St. knife in w/lube to bearing strip—TY6350, Loctite to 1/2" bolts and lube to 5/8" bolts, torqued to 75/175/75 with vise-grips holding filler plates tight to CH walls and antiseize between the parts; grease lines back on, tie-wrapped wiring as needed

Sharpener:

Removed sweep motor and then cable assembly group, lubed pivot points and rod end pin; greased stone carrier, pushed old grease out, wiped off, then applied TY6350

Replaced stone, bolts in with 242 Loctite, set up/down endplay to .005"

Found manual sharpen bracket is cracked, removed and welded

back together and grind flat as needed, painted, aligned to rod when stone is on lowered position

Reinstalled cable assembly, sweep motor back in, painted rusted areas on motor, reconnected cable at vee in block and remarked cable for correct position; bolted sharpener down, with lube on pivots and rusted areas, stone home, lower motor back into position once stone carrier is at stop switch

Raised CH and cleaned and lubed rollers and cylinder ends

Last rear CH cover inspection 3-2019 and was 80%; last new rear cover 3-2012 @ 4368/3165 hrs.

Sp. Floor last new 3-2015 @ 5101/3907 hrs.; is 60% at this time; has 1078/573 hrs. on floor at this time

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Chutes related:

Large bottom chute has been rewelded and plated at rear vertical corners, has SS liner, 90%

SS clip on chute 90%, good condition

At chute reinstall, good fit of both; snug fit of large bottom chute to CH (no up-down endplay)

No other chutes here

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KP:

Removed/replaced RH KP belts AZ39677, existing have run 2 seasons; put in power locker

KP rolls measure 664-665, just starting into red zone; per Dan H. wants to continue to run 150-200 acres corn in 2020 unless not possible; currently rolls are not plugging in corn; teeth are still fairly sharp but rusted (recommend lube at end of season)

KP pan off and top/front panel off to clean existing crop off/out of rolls and between rolls and walls

Drove out spring pins and KP retaining top pins, heated each pin and bent to 5 degrees against weight of KP, cut inner tapered end off so pin is engaged further into KP itself, reinstalled pins

Cleaned remaining crop off KP and between walls and rolls and spun rolls until fully clean, then lubed heavily with TY6350

Lubed KP tensioner bearings and arm pivot points and cylinder end

KP motors on KP when received; verified channels 1 and 2 were at 133, LH motor will not move, rolls were at 2.3 mm gap when received, pulled LH motor and disassembled and found pole shoe magnets coming off; not planning to reinstall at this time and instead will install mechanical locks going forward

Removed wire harness and tie-wrapped together and will put in power locker

Set rolls at 2.0 mm gap and parallel; then replaced/installed

mechanical locks Z49978

Reinstalled pan and top/front panel—all bolts in with 271

Loctite and hand-tightened to 40 ft. lbs.

Raised KP in rails and noted engagement of pins on rails is good and should hold KP in upper position without falling off pins

Greased KP tensioner and idler and sealed over holes

After greasing KP, removed and tie-wrapped KP grease hose to top of KP (is labeled to install when KP is used); installed KP grease return line and lubed couplers so they will connect easier

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Blower and Transition related:

Blower floor (std. version) and sectors last new 3-2019 @ 5960/4320 hrs.

Blower entry chute out—will replace at this time, fully clean above 3 spd. Transmission

Blower rotor spun with belts off, bearings smooth, no endplay found, cleaned out blower of aged crop

Blower door 80%, lubed and closed fully

Replaced blower floor; existing was worn 1/8" on each side 2" from blower walls, sectors are 90% at this time, lubed as needed; fully cleaned inside blower, reset blower knives to 1.0 mm and 1.5 mm every other blower knife; retorqued to 130 ft. lbs. (1.5 mm set knives were not moved at this time)

Put rear blower fire suppression plate back in

Transition is wearing well at this time, has inserts welded in corners; last new 3-2010 @ 4368/3165 hrs.; has 1891/1315 hrs. on at this time (expected use life is 1650-1800 CH hrs. with std. non-converging Spiral floor in machine (approx.. 2 seasons from needing replacement)

New blower entry chute in and bolts in with antiseize; closed flip door and bolted

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Spout related:

Spout front section 10%, removed to replace, scraped rust off/out and lubed, blew out inside of spout; sides are 70%; had to cut 3/8" off new liner to get liner into spout; installed with Fluid Film; bolts/nuts on with antiseize

200 mm spout version

Mid-liner 80% (add-on)

Rear section 75%, caps 80%, lubed all pivot points, ran cap up/down several times, motor is good, has been drilled/greased

Noted spout casting just starting to wear through at front steel insert—on horizon

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Status of wear parts:

UFFR = 80% serrated bars
URFR = 90% SS version
LFFR = 60% ends 80% mid-section
LRFR = 90%
Stone = 100%
Knives = 90%
St. Knife = 80%*/0%
Sp. Floor = 60%
KP rolls = 664 and 665 beginning of red zone
Blower entry = 100%
Blower floor = 100%
Blower knives = 90%
Blower bolts = 90%
Blower sectors = 90%
Transition = 70%
Spt. Front liner = 100%
Spt. Mid-liner = 80%
Spt. Rear section = 75%
Spt caps = 80%

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On Horizon:

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-2 Main clutch repairs

3-18-20

Main clutch apart—it is completely worn out and teeth are gone,
clutch outer ring has severe wear

Rotary hyd. Fitting also worn and leaking

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Replaced main clutch assembly

See notes in seg. 1 for details