

DAVENPORT MACHINE CONDITION CHECK LIST-1 HOUR

DATE: _____ MACHINE# _____ INITIALS: _____

CHECK & RECORD MACHINE CONDITION

G F B

1.	Stud and Bushing in "C" position Swing Arm			
2.	Stud and Bushing in "E" position Swing Arm			
3.	Check gap between Revolving Head and Cap			
4.	Check Head Locking and Locating arm for the following conditions: Pin, Bushings, Head movement when locking, proper clearance between locating block and the lever, Roll & Pin			
5.	Left End Bracket, Support ring: Cracks, Broken support Ribs, Slide Rail condition, loose Screws and Pins, thread condition at Stock Reel coupler			
6.	Work Spindle Condition: Side play Spindle#1 Record Spindle#2 Record Spindle#3 Record Spindle#4 Record Spindle#5 Record			
7.	Feed Mechanism: Bushings, Slide Rods, Play between Pin and Blocks			
8.	Chuck Opening Mechanism: Excessive play			
9.	Chuck Closing Mechanism: Excessive Play			
10.	"A" & "B" position Cross Slides:			
11.	Chuck & Feed Cam: Roll & Pin, end play, Roll Slots			
12.	Lube System and Gauges: pressures of 12Lbs. low and 120 high side, check for leaks			
13.	Hand Clutch: Adjustment, Rolls & Pins, Chucking Mechanism			
14.	High Speed Clutch: end play in shaft, Bushing condition, Long & Short Levers, Rolls & Pins			
15.	Feed Gear Box and components: Compound Gears, Feed Gear Shaft and Bushings, Roll Clutch, door and Box condition			
16.	Tool Spindle Cam Shaft, Extension, Bushings, Brake Assembly Front Cam Shaft, Spacer, Bushings,			
17.	Wire Carrier: cracked or broken tubes, Inner Carrier cracks or brakes, Center shaft is tight, Rear Support rolls are turning every index, Caps are on both ends of Tubes			
18.	All Guards and Covers are there and in good repair			
19.	Electrical components: Be sure all components are secure, Doors and Covers are in place and work, Switches and Lights work, there are no broken or cracked wires			

HOW TO CHECK

- 1., 2. Take a short pry bar and push up on the tool arm look at the top of the arm at the Stud, Bushing if the stud has any amount of movement the Bushing should be replaced. Be sure if you replace the bushing you mic. the stud to be sure it is good as well.
3. Using a set of Feeler Gages check the head between 3rd and 4th position and 4th and 5th position to see what size gage can be put between the revolving Head and the cap. With readings of more than .004 some caution should be used as to the size of material and the amount of side working to be done. When you get readings of more than .006 you should be considering repairing or replacing the machine.
4. With the Locking Lever unlocked hold the arm at the top just under the 729 Block pull out and then push in as you watch the 624-1 pin in the bushing to see if there is any movement between the pin and bushing. If the pin moves side to side in the bushing loosen the lock screw and tap the pin in (caution should be used not to damage the puller hole).if the pin goes in you will need to readjust the roll. If the pin doesn't go in the Bushings will have to be replaced. Jog the Machine through a couple of Indexes and watch the Lever as it lifts and the machine begins to index there is no pressure on the Lever. When the machine indexes look to see if there is clearance between the 729 Block and the 724-1 Locating block on the Revolving Head if it does hit you need to find out where you are losing stroke. When the locking Lever begins locking down be sure that the Lever is not coming down on top of the block on the revolving head. It should however move the revolving head back at least .010. With the head locked down take a chucking bar and tap on the Locking Lever while trying to turn the 5080-36 Roll the roll should turn slightly each time the lever is struck.
5. Visually check the MB-380-2 Support Ring for cracks, broken ribs, deep wear marks or any other damage that may cause the ring not to function properly. On the Left slide Bracket check for loose, bent or worn Slide Rails. Threads are good where Wire Carrier tightens
6. With a small screw driver placed between the tool post stop and the outer spindle place your thumb opposite the screw driver push with the screw driver and then with your thumb. Alternate the pressure between the screw driver and your thumb several times note the movement. Spindles with bronze bearings have .0014 oil clearance Spindles with needle bearings have .0005 oil clearance. Depending on your job mix you can make a determination on how much wear you can work with. Be sure NOT to push the screw driver in so far that you stop the spindle from moving back!! A dial indicator can be used placed on the spindle next to your thumb to give you a numeric figure to record.
7. This is strictly a visual inspection you can engage the roll into the chuck and feed cam and move the inner portion of the feed lever back and forth. Look for excess play in the Bushings, Blocks and Pin, Roll and Pin, hardened Guides are in place and are tight. Jog the machine through an index watch the feed slide roll as it enters the guide it should enter without hitting. Also the feed Slides should be inspected for excessive wear as well

as the roll and pin being tight. There will be a slight amount of play that is built into the Chuck and Feed Cam.

8. This is also a visual inspection with the roll engaged in the chuck and feed cam move the Top portion of the Chuck Opening mechanism inspect for excess play. Jog the machine through an index look at the 328 Chuck Slide when the roll begins to enter the Chuck opening Guide to be sure that it enters without hitting the guide. There will be a slight amount of play that is built into the Chuck and Feed Cam.

9. Position the machine where the chuck closing mechanism is at it is the furthest back. You will at this point be able to visually inspect the 5139-2 Closing Block for wear as well as any other types of physical damage. You can also at this point move the lever at the same time inspect for excessive play in the Bushing, Roll & Pin. After the collets have been installed index the machine through at least 5 indexes and make sure the Chucks are all closing the proper amount depending on the style you have on your machine.

10. Inspect the tops of the 1st, 2nd position Cross Slides for Physical damage to the T Bolt slots, the adjusting bolt area, cracks & broken corners, the key slot. With out any springs on the Cam Levers move the slides in and out to be sure they move smoothly. Using a small pry bar or screw driver and the slide in where it would be cutting see if you can move the slide from side to side. With no springs on the on the cam levers push the slides in they should retract by them selves.

11. Jog the machine through at least one complete index while looking at the roll slots look for dents, chipped areas, the edges of the slots rolled out. Remove the cover over the Bronze Gear and look at the indexing roll & Pin make sure the roll spins and is free from physical damage, make sure the Pin is tight in the gear. Take a pry bar and try to move the Chuck and Feed cam back and forth on the shaft (if it moves make sure the nut is tight if it still moves the bearing should be replaced.

12. There are several styles of Lube systems the 2 types that are most common are the belt driven and the electric. Both the electric, belt driven on the model B have a high and a low side. The high side of belt system should have a pressure of 120 lbs the electric should be at least 100 lbs. The low pressure side of the belt driven system should be 12 to 15 lbs, 30 lbs on the electric. The system should be inspected to sure that it does not have broken or damaged lines, loose fittings. The machine can be run to inspect for leaks simply by removing the spindle gears. This will allow you to run your machine under power with out indexing the Revolving Head.

13. Engage the Hand Clutch then move the handle back and forth and note the amount free play in the handle. See if the handle cams over when it is engaged, if not look at the chucking mechanism (This condition could cause the machine to slip out of gear while making production). If you can move the handle check the shoes & pins check the pins in the linkage and check the key in the handle as well as the keys in the levers.

14. Remove the pin that engages the high speed clutch, take a Chucking Bar lift the large lever to engage and than disengage the high speed clutch (if you can not engage the high speed using a chucking bar it is too tight and should be backed off). The clutch should have a distinct cam action to it. Look at the high speed 5080-139-1 shaft to see if it is moving back and forth (If so adjust the play out using the Driving Clutch Bracket Arm). With the high speed clutch engaged move the lever by hand up and down look for play between the shoes & Pins, Levers & Pins (If used), check the 1761 Bushing for play.

Move the High Speed short Arm look at the amount of movement (There should be a slight amount of between the roll and the cam slot). Install the pin into the High Speed short arm, jog the machine into high check the chucking mechanism to see if it is closed the proper amount (Fulcrum style approximately 1/32" between the Chuck Lever Sleeve and the Fulcrum, Barrel Chucking you should see the groove on the inner sleeve).

15. Open the gear box door look disengage the compound gear from the feed gear try to move the compound gear and look for play in the bushing and sleeve. Take a small pry bar and see if you can move the feed gear shaft in the bushing. Engage the compound gear and the high speed pin run the machine while watching the roll clutch to see if it brakes free in high and doesn't slip in low. Watch the roll clutch to see if it is moving in and out (if so the Timken bearings will need to be replaced). If a reversing clutch is used make sure the spring is strong enough to not allow the clutch to engage by its self.

16. With the cam shaft outer bracket off and the tool spindle cam carrier removed see if you can move the 5080-22-10 cam shaft up and down if so how much, do the same with the cam shaft extension. Inspect the ground surfaces on the cam carriers (if they are worn it could cause the cam bolts to brake and prematurely wear the bushings). Install the cam carrier and out board bracket tighten them up, run the machine and look at the out board bracket to see if the bracket is moving. NOTE: all of the play you find will result in lost thousands of cam rise!

17. The wire carrier should be level with the machine this can easily be checked looking at the slide rails on the left end bracket where they are engaged to the inner carrier (front bracket) if they look even front to back and have the same amount of space on the sides they should be ok. Look at the center carriers to be sure they are not cracked or broken. Look at the caps on the ends of the tubes, the rolls on the outer carrier (rear support) turn when the machine indexes and does not have flat spots. Inspect the tubes for cracks or brakes. Be sure that the center shaft is tight and the wire carrier will slide on and off easily.

18. Check all Guards and Covers for cracks, brakes make sure they are all there and fit properly including the one for the 1st position cross slide.

19. Inspect the electrical system for cracked, broken, pulled liquid tight conduit, covers in place, all components are securely fastened. Check main disconnect is working and is capable of