

MINNESOTA
IOWA
MISSOURI
WISCONSIN952-888-4121 800-352-2812
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Invoice Number: SW520085336

Date: 12/14/17

Account No.: 0092290

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| Quantity | Item | N/R | Description | Unit Price | Extended |
|----------|--|-----|-------------|------------|----------|
| | COMPLETE PRE-SAFETY CHECK CUSTOMER COMPLAINT: JOB SITE ASSESSMENT COMP | | | | |
| | SEGMENT AA TOTAL | | | | .00 T |
| | REPAIR WIRING CUSTOMER COMPLAINT: MACHINE WOULD NOT START NO FUNCTION TO THE BASKET CAUSE OF FAILURE: THE TUBE THAT THE WIRING WENT THROUGH BOUND UP AND PINCHED/CUT WIRES RESULTANT DAMAGE: FUNCTIONS TO THE BASKET WOULD NOT WORK REPAIR PROCESS COMMENTS: RAN A JUMPER WIRE TO THE BASKET AND GOT SOME OF THE FUNCTIONS TO WORK TRIED TO EXTEND THE BOOM TO GET A BETTER LOOK AT SOME OF THE WIRES FOUND THAT THE TUBE THAT THE WIRING AND HYDRAULIC HOSES WENT THROUGH HAD BROKE AND WOULD PINCH THE WIRES WHEN IT WOULD EXTEND. THEN THE MACHINE WAS PUSHED INTO THE SHOP THE WIRING AND HYDRAULIC HOSES WERE LABELED THEN REMOVED FROM THE BASKET THEN IT WAS PULLED THROUGH THE TUBING THE WIRING IN THE CONTROL PANEL WAS LABELED EACH HARNESS WAS REMOVED AND REPLACED SEPARATELY TO MAKE SURE IT WENT BACK IN THE EXACT SAME WAY. CUSTOMER COMPLAINT: BASKET CONTROLS WOULDNT WORK CAUSE OF FAILURE: THE BOLTS AT THE FRONT OF THE OUTER TUBE HAD RUSTED AND CAUSE IT TO SLIDE OFF THE TRACK. THEN IT WAS EXTENDED CUTTING WIRES AND HYDRAULIC LINES RESULTANT DAMAGE: THE WIRING WAS CUT AND HYDRAULIC LINES WERE STRECHED AND CUT TO THE BASKET. MOST OF THE BASKET FUNCTIONS DID NOT WORK REPAIR PROCESS COMMENTS: I TROUBLESHOT THE MACHINE BY PUTTING IN A JUMPER HARNESS IN VARIOUS SPOTS AND REGAINED SOME POWER AND ADDED A NEW KEY SWITCH AND STOP SWITCH. THEN IN THE BASKET SOME OF THE FUNCTIONS WORKED BUT NOT ALL. I TRACED BACK THE WIRING AND FOUND THE CUT WIRES AND HYDRAULIC LINES AT THE REAR OF THE BOOM. ONCE THE MACHINE WAS MOVED INSIDE THE WIRING TO THE BASKET WAS LABELED AS BEST I COULD WITH WHAT WAS THERE AND THE WIRING AND HYDRAULIC LINES WERE REMOVED. THE WIRING AT THE BASE WAS CAREFULLY LABELED. THEN THE TUBES WERE TAKEN OFF AND THE BASE FOR THEM WAS REMOVED. A NEW TUBE WAS ORDERED. THE ELECTRICAL HARNESS WERE MEASURED AND ORDERED AS WELL. ONCE THE TUBE WAS FABRICATED AND READY THE WIRING WAS WIRED INTO THE BASE IT WAS STRUNG OUT WITH THE NEW HYDRAULIC HOSES. THEY WERE SLID INTO THE TUBE BASE AND THAT WAS BOLTED TO THE MACHINE. THE CHAIN THEN WENT UNDERNEATH THE WIRING AND THEN THE CHAIN WAS SNAPPED INTO PLACE MAKING SURE EVERYTHING WASN'T TANGLED. | | | | |



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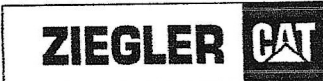


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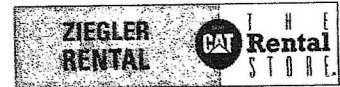
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| <p>AFTER RUNNING THE WIRES THROUGH THE BOOM I STARTED CONNECTING THEM IN THE BASKET. THE WIRING THAT WAS THERE WAS A MESS AND VERY HACKED UP. I GOT THE BREAD BOARD TYPE OF CONNECTIONS PUT TOGETHER AND MOST OF THE WIRING CONNECTED. WILL TAKE A LOT OF TIRAL AND ERROR TO GET ALL THE FUNCTIONS WORKING. GOT THE STARTING CIRCUIT WORKING IN THE BASKET. HAD TO TRACE ALL THE WIRES IN THE BASKET AND AT THE BASE TO MAKE SURE THEY WERE THE CORRECT ONES. THEN I HAD TO TROUBLSHOOT THE SAFETY FOOT PEDAL IN THE BASKET AND FIGURE OUT WHAT CIRCUIT IT WENT TO AND HOW IT WORKED. ENDED UP RUNNING WIRES BACK TO THE CORRECT SPOT IN THE FOOT PEDAL TO GET IT WORKING FOR THE NORMALLY OPEN CIRCUIT. FOUND OUT THAT SOME SWITCHES WERE BAD CAUSING THE CIRCUIT TO LOSE VOLTAGE WHEN SOME SWITCHES WERE ACTIVATED. AFTER INSTALLING THE NEW MICRO SWITCHES I TRIED IT AGAIN. BUT I HAD NO POWER TO THE FUNCTIONS. I SWITCHED THE WIRING IN THE FOOT PEDEAL AND REGAINED POWER. THEN ALL FUNCTIONS WORKED BESIDES THE FORWARD AND REVERSE. I FIGURED OUT THE ONLY WAY TO MOVE THE BOOM UP WAS TO HIT A TOGGLE SWITCH AND BOOM UP AT THE SAME TIME. I TRACED ALL THE WIRING FROM THE BASKET TO THE BASE THEN FROM THE SOLENOID VALVES THEMSELVES TO THE CIRCUIT BOARD. I THEN MOVED 1 WIRE AND GOT THE FORWARD AND REVERSE FUNCTIONS TO WORK. THE FITTING WAS PUT IN TO THE SWING MOTOR AND THEN WAS TESTED. I ADJUSTED THE ANGLE OF THE FITTING AND IT DOES NOT BIND OR PINCH AND WORKS AT THE BASE ON THE BASKET. THE HYDRAULIC LINES AND WIRING WERE ZIP TIED IN PLACE. I INSTALLED NUT ZERKS FOR THE COVER OF THE BASKET SINCE THE OLD ONES WERE GONE OR STRIPPED. THE WIRING WAS TIED UP AND THE COVER WAS BOLTED DOWN. THE BATTERIES ARE WEAK AND WILL NEED TO BE REPLACED THERE WAS A LOT OF TROUBLESHOOTING TO GET ALL THE FUNCTOINS TO WORK. THE WIRING WAS VERY HACKED AND MOST OF THE WIRING HAD TO BE TRACED ALL THE WAY THROUGH THE MACHINE. ALSO THERE IS NO SOLENOID TO THE SHUT OFF AND THAT HAS TO BE DONE MANUALLY</p> | | | | | |
| 8 | GE/19712 | | MICROSWITCH | 7.68 | 61.44 |
| 3 | GE/29480 | | TRACK REPAIR, 7LINKN | 60.00 | 180.00 |
| 2730 | GE/48533 | | WIRE | .50 | 1365.00 |
| 1 | 122512 | | GN-SERVICE KIT, KEN | 42.49 | 42.49 |
| 1 | 122514 | | GN-KIT, ESTOP SERV N | 25.35 | 25.35 |
| 2 | 147094 | | GN-CIRCUIT BREAKERN | 4.65 | 9.30 |
| | | | TOTAL PARTS | SEG. 01 | 1683.58 * |
| | | | | F/R LBR | 2500.00 * |
| 3.00 | | | IBF GROUND | | 68.48 |
| 1.00 | | | IBF GROUND | | 13.60 |
| | | | TOTAL MISC CHGS | SEG. 01 | 82.08 * |
| | | | SEGMENT 01 TOTAL | | 4265.66 T |

 REMOVE & INSTALL ROD/TUBE
 CUSTOMER COMPLAINT:
 TUBING WAS BENT UP AND WOULD BIND AND CUT WIRES
 CAUSE OF FAILURE:
 IT RUSTED OUT AT THE FRONT AND THEN BOUND UP



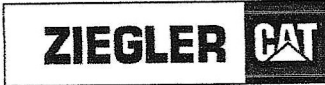
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| <p>CAUSING IT TO CUT WIRES WHEN IT WOULD EXTEND RESULTANT DAMAGE: WOULD NOT WORK PROPERLY AND WOULD CUT WIRES REPAIR PROCESS COMMENTS: THE WIRES AND HYDRAULIC LINES WERE PULLED THROUGH IT THEN I WAS ABLE TO REMOVE THE TUBING. THE BASE FOR THE TUBING WAS REALLY BENT UP AND THE MOUNTING BRACKETS WERE BENT SO THEY WERE HAMMERED BACK AND REWELDED FOR STRENGTH PURPOSES. CUSTOMER COMPLAINT: FUNCTIONS AT THE BASKET WOULD NOT WORK CAUSE OF FAILURE: THE BOLTS AT THE FRONT OF THE OUTER TUBE HAD RUSTED AND CAUSE IT TO SLIDE OFF THE TRACK. THEN IT WAS EXTENED CUTTING WIRES AND HYDRAULIC LINES RESULTANT DAMAGE: THE FUNCTIONS TO THE BASKET WOULDN'T WORK REPAIR PROCESS COMMENTS: THE TUBING WAS BENT SO A NEW OUTER TUBE HAD TO BE INSTALLED. THEN THE BASE WAS STRAIGHTNED OUT SINCE IT WAS BENT AT BOTH ENDS. A BRACKET WAS CUT OFF THE OLD OUTSIDE TUBE AND WELDED ON THE NEW TUBE. THE MOUNTS FOR THE BASE HAD TO BE STRAIGHTENED AND THEN WELDED FOR STRENGTH. NEW BOLTS WERE USED AT THE FRONT OF THE OUTER TUBE. A NEW WEAR PLATE WAS ADDED SINCE THE OLD WAS COMPLETELY MISSING. THEN I INSTALLED THE NEW HYDRAULIC LINES. EVERYTHING WAS STRUNG OUT AND UNTANGLED. THEN THEY WERE SLID INTO THE BASE THEN RAN TO THE BACK OF THE MACHINE THROUGH THE MAIN TUBE. THEN THE SMALL TUBE WAS SLID IN AND EVERYTHING WAS FISHED THOUGH AND THE PLASTIC PROTECTION CHAIN WAS INSTALLED. MADE AN ACCESS COVER TO GET TO THE INSIDE TUBE FOR THE CHAIN GUARD. ONCE THAT WAS DONE THE CHAIN GUARD WAS EASILY ABLE TO GO ON. AFTER GETTING THE MACHINE MOVING I BOOMED IT ALL THE WAY OUT AND IN. ONCE IT WAS IN IT WENT TOO FAR SO I WELDED A PLATE AND A SUPPORT TO THE REAR OF THE SLIDE PREVENTING IT FROM SLIDING TOO FAR BACK. I HAD TO SPOT WELD AND COOL MY WELDS TO PREVENT ANY DAMAGE TO THE WIRING AND HYDRAULIC HOSES UNDERNEATH. THEN THE TUBE WAS PAINTED BLACK.</p> | | | | | |
| 8 | 247-1913 | | BALLSTUD | N5 4.14 | 33.12 |
| 1 | 458-9585 | | PAINT-BLACK | S5 10.01 | 10.01 |
| 1 | GE/13921 | | ELBOW | N5 7.37 | 7.37 |
| 1 | GE/25697 | | WEAR PAD | N5 69.79 | 69.79 |
| 2 | GE/28586 | | HOSE | N5 154.74 | 309.48 |
| 1 | GE/28588 | | HOSE | N5 154.77 | 154.77 |
| 1 | GE/28589 | | HOSE | N5 147.56 | 147.56 |
| TOTAL PARTS | | | | SEG. 02 | 732.10 * |
| | | | | F/R LBR | 1200.00 * |
| 1.00 | | | TUBING | | 155.99 |
| 2.00 | | | IBF GROUND | | 27.26 |
| 1.00 | | | IBF GROUND | | 24.44 |
| TOTAL MISC CHGS | | | | SEG. 02 | 207.69 * |
| SEGMENT 02 TOTAL | | | | | 2139.79 T |



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| ----- | | | | | |
| REMOVE & INSTALL HOOD SUPPORT CUSTOMER COMPLAINT: HOOD WOULD NOT STAY OPED CAUSE OF FAILURE: FAILED SHOCKS AND SHOCK MOUNTS RESULTANT DAMAGE: HOOD WOULD NOT STAY UP ON ITS OWN REPAIR PROCESS COMMENTS: OPENED THE HOOD AND SECURED IT. THEN REMOVED THE SHOCKS TO THE HOODS AND INSTALLED NEW SHOCK MOUNTS THEN INSTALLED NEW SHOCKS. NOW BOTH HOODS STAY OPEN ON THEIR OWN | | | | | |
| 4 | GE/28301 | | GAS STRUT | N5 16.82 | 67.28 |
| | | | TOTAL PARTS | SEG. 03 | 67.28 * |
| | | | | F/R LBR | 114.00 * |
| | | | SEGMENT 03 TOTAL | | 181.28 T |
| ----- | | | | | |
| 2.00 | TRANSPORT | | TRANSPORT HAUL | | 450.00 |
| | | | TOTAL MISC CHGS | SEG. 98 | 450.00 * |
| | | | SEGMENT 98 TOTAL | | 450.00 T |
| ----- | | | | | |
| | | | SERVICE SUPPLIES AND ENVIRONMENTAL CHARGES | | 228.69 T |
| | | | IOWA SALES TAX - 6% | | 259.95 T |
| | | | IA LO LABOR CERRO GO | | 43.32 T |
| | | | DUE BY 10TH OF THE NEXT MONTH | | |
| | | | INVOICE TOTAL | | 7,568.69 |