## **Doosan MX Series Alarm List**

| Alarm<br>No. | Message  |
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| 2001         | WHETHER EMERGENCY BUTTON IS PRESSED OR OVERTRAVEL OF AXES IS DETECTED, RELEASE EMERGENCY BUTTON AND LIMIT SWITCH FOR OVERTRAVEL CHECK.                   |
| 2002         | THE ALARMS OF THE MAIN SPINDLE MOTOR AND SERVO UNIT DETECTED, CHECK ALARM DISPLAY ON THE SERVO UNIT THEN RETRY AFTER POWER OFF-ON.                       |
| 2003         | OVERCURRENT IN THE CONTROL POWER CIRCUIT, ABNORMALLY LARGE CURRENT FLOW IS DETECTED IN THE CONTROL POWER CIRCUIT, CHECK FOR CONTROL POWER SHORT CIRCUIT. |
| 2004         | HYD. PUMP MOTOR OVERLOAD IS DETECTED, CHECK OVERLOAD VALUE ON THE THERMAL RELAY AND MOTOR.   |
| 2005         | HYD. PRESSURE IS DOWN, CHECK HYD. PRESSURE SWITCH, PRESSURE VALUE AND LEAKAGE OF HYDRAULIC.  |
| 2007         | SPINDLE ROTATION IS ABNORMAL.  |
| 2009         | REVOVING SPINDLE EMERGENCY STOP  |
| 2010         | INVERTER FAULT ALARM   |
| 2011         | KEEP RELAY SETTING ALARM. PLEASE CHECK THE KEEP RELAY(K5,K5)   |
| 2016         | PSM POWER RUNNING ALARM. PLEASE CHECK AUXILLARY CONTACT ON THE MAGNETIC CONTACTOR (KM10 OR KM110).   |
| 2019         | MILLING SPINDLE ORIENTATION OVERTIME   |
| 2020         | COOLANT & LUB. PUMP MOTOR OVERLOAD OR Q11 FOR SERVO TURRET, CHIP CONVEYOR AND BAR FEEDER OVERLOAD IS DETECTED.   |
| 2021         | TORQUE SKIP DATA ERROR   |
| 2022         | SPINDLE ORIENTATION CONFIRM IS NOT DETECTED WITHIN 10SEC, CHECK ORIENTATION PARAMETER AND READJUST. ORIENTATION INDEX COMMAND ALARM.                     |
| 2023         | TOOL INDEX OVERTIME  |
| 2024         | TOOL NUMBER COMMAND ALARM  |
| 2025         | TOOL NUMBER SELECT KEEP RELAY SET ALARM  |
| 2027         | SPINDLE SPEED ARRIVAL IS NOT DETECTED WITHIN 7SEC, CHECK SPINDLE SERVO UNIT.   |
| 2028         | SPINDLE ROTATION CONDITION IS NOT READY, CHECK SPINDLE ROTATION CONDITION.   |
| 2029         | SPLASH GUARD DOOR IS OPEN, CHECK SPLASH GUARD DOOR OPEN ANDLIMIT SWITCHES.   |
| 2030         | M17 OR M18 IS COMMANDED IN ILLEGAL MODE, PLEASE CONFIRM MDI MODE.  |

| 2031 | PLEASE MANUAL REF.POINT RETURN, OTHERWISE AUTO.OPERATION IS IMPOSSIBLE.   |
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| 2032 | FEEDHOLD PUSH BUTTON IS PRESSED.  |
| 2033 | AIR OR COOLANT PRESSURE SWITCH IS DOWN.   |
| 2034 | PROXIMITY SWITCH FOR CHUCK CLAMP CONFIRM POSITION ERROR, RESET SWITCH POSITION (PX1.M) (PX2.M)                                      |
| 2035 | AXIS CHANGE OVERTIME.   |
| 2036 | M68 OR M69, M168 OR M169 IS NOT FINISHED WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION. |
| 2037 | M78 OR M79 IS NOT FINISHED, WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.              |
| 2038 | M45,M46,M47 IS NOT FINISHED WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.              |
| 2039 | M10 OR M11 COMMAND ALARM, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.  |
| 2040 | M50 OR M51 IS NOT FINISHED, WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.              |
| 2041 | THE ALARMS OF THE BARFEEDER IS DETECTED, CHECK BAR-FEEDER.  |
| 2042 | M52, M53, M152 OR M153 IS NOT FINISHED, WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.  |
| 2043 | M58 OR M59 IS NOT FINISHED, WITHIN 15SEC AFTER COMMAND, CHECK SOLENOID VALVE, POSITION SWITCH, AND OPERATION CONDITION.             |
| 2045 | Q-SETTER OPERATION ALARM. CHECK SENSOR AND SOLENOID. TO MEASURE X1-AXIS THAT Y-AXIS SHOULD BE LOCATED AT 0. (1ST.REF) POSITION      |
| 2046 | CHUCK IS OPENED DURING THE SPINDLE ROTATION, CHECK HYD.PRESSURE.  |
| 2047 | TURRET CLAMP SWITCH ERROR   |
| 2048 | THE RESET COMMAND IS USED WHILE PROGRAM IS RUNNING.   |
| 2049 | M88,M89,M90,M188,M189,M190 COMMAND ALARM. CHECK SOLENOID VALVE, POSITION SWITCH AND OPERATION CONDITION.                            |
| 2050 | LUB.PRESSURE IS DOWN OR LUBRICATION OIL LEVEL IS LOW, CHECK LUB.UNIT AND REPLENISH THE OIL.   |
| 2051 | OIL COOLER ALARM  |
| 2052 | M61 OR M62, M161 OR M162 IS NOT FINISHED WITHIN 15SEC AFTER COMMAND. PLEASE CHECK INITIAL CONDITION.                                |
| 2053 | WORK EJECTOR & DETECTOR ALARM   |
| 2054 | MILLING SPINDLE IS UNCLAMPED.MILLING SPINDLE SHOULD BE CLMAPED IN TURNING MODE.   |

- 2055  $\,$  ILLEGAL SYNCHRO INITIAL STATE IS DETECTING . PLEASE CHECK CHUCK STATE.
- THIS COMMAND CANNOT BE PERFORMED. PLEASE PERFORM THE REF.
- POSITION RETURN OF X & Y-AXIS BEFORE THIS COMMAND.
- 2057 TOOL LIFE COUNT END ALARM.
- 2058 PARTS COUNT END ALARM.
- 2059 M,T-CODE COMMAND ALARM WITH A-AXIS.
- 2060 CHUCK UNCLAMP STATUS.
  - SAFETY LOCKING SWITCH ALARM. PLEASE CHECK CONDITION OF THE
- 2061 LOCKING KEY SWITCH OR WIRE CONDITION THAT IS CONNECTING
  BETWEEN NO.11 AND NO.12 IN SAFET LOCKING SWITCH.
  LIMIT SWITCH FOR PROGRAMABLE TAILSTOCK IS NOT OPERATED WITHN
- 2062 SSEC AFTER COMMAND, CHECK SOLENOID VALVES AND LIMIT SWITCHES.
  - PROXIMITY SWITCH FOR Q-SETTER IS NOT OPERATED WITHIN 5SEC
- 2063 AFTER COMMAND, CHECK SOLENOID VALVES AND PROXIMITY SWITCHES.
- 2064 M66 OR M67 COMMAND ON THE M/C, THE NEXT M03 OR M04 COMMAND.
- 2065 Y-AXIS IS NOT IN A REFERENCE POSITION. PLEASE RETURN THE Y-AXIS TO REFERENCE POSITION FOR BT-AXIS MOVING.
- 2066 CHECK POSITION DETECTING SWITCHES ARE OPERATED SIMULTANEOUSLY, CHECK SWITCH.
- 2067 TOOL SWITCH ALARM
- DRY RUN STATUS. IF YOU PRESS CYCLE START BUTTON, THIS ALARM WILL RESET.
- 2069 COOLANT FILTER CHANGE ALARM
- 2070 SPINDLE CAMMAND IS ABNORMAL. CHANGE SPINDLE COMMAND AFTER SPINDLE STOP(M05/M35/M65/M105/M165).
- 2071 CHIP CONVEYOR ALARM
- 2072 TORQUE ALARM
- 2073 ILLEGAL COMMAND ALARM
- 2074 COOLJET LOW PRESSURE OR FILTER BLOCK ALARM
- 2075 TOTAL CYCLE START ALARM
- 2076 HIGH PRESSURE FILTER OR COOLJET FILTER BLOCK
- 2077 MILLING SPINDLE CLAMP, UNCLAMP COMMAND ALARM. MILLING SPINDLE IS ROTATING OR SENSOR IS ABNORMAL.
- 2078 B-AXIS DISC CLAMP COMMAND IS NOT AVAILABLE WHEN NEW TYPE B-AXIS IS USED.
- 2079 B-AXIS SENSOR ALARM. PLEASE CHECK THE B-AXIS DISC CLAMP CHECK SENSOR AND CURVIC CLAMP CHECK SENSOR.
- 2080 B-AXIS ANGLE IS NOT A MULTIPLE OF 15 DEGREE

| 2081 | B-AXIS POSITION S/W ALARM  |
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| 2082 | MILLING SPINDLE IS CLAMPED YET   |
| 2083 | MILLING SPINDLE IS UNCLAMPED YET   |
| 2084 | IN HANDLE MODE, CAN'T CHANGE TOOL OFFSET WITH Q-SETTER. PLEASE, CHANGE MODE TO JOG MODE AND TRY AGAIN.   |
| 2085 | RETURN THE REFERENCE POINT OF X1 AND X2-AXIS FOR MOVING A-AXIS.  |
| 2086 | TOOL MONITOR ALARM.DETECT ABNORMAL LOAD AND TOOL WARN ALARM  |
| 2087 | TOOL MONITOR ALARM.DETECT ABNORMAL LOAD AND TOOL BROKEN ALARM  |
| 2088 | THE SPINDLE SWITCHING IS INVALID IN RIGID TAPPING MODE. CANCEL RIGID TAPPING MODE TO SWITCH OTHER SPINDLE.   |
| 2089 | B-AXIS IS NOT CLAMPED YET. PLEASE MAKE SURE THAT THE B-AXIS IS CLAMPED BY M106,M110 OR M112.   |
| 2090 | PROGRAM RESTART TOGGLE SWITCH ON STATE.  |
| 2091 | SERVO TURRET BATTERY LOW ALARM, PLEASE CHANGE BATTERY IN AMP. MODULE WITHIN 2 WEEKS.   |
| 2092 | SPINDLE COMMAND ALARM. WHEN COMPOSITION CONTROL MODE, REV-SPINDLE RECOMMAND IS IMPOSSIBLE AFTER REV-SPINDLE STOP.  |
| 2093 | REFERENCE COMMAND FROM REFERENCE POSITION KEEP STATE.  |
| 2094 | HIGH LOW CHUCK SWITCHING STATE. OPERATE CHUCK AS UNCLAMPING AND CLAMPING BY FOOT SWTCH.  |
| 2095 | RIGID TAPPING OR ORIENTATION COMMAND ALARM. M19 OR M119, M29 IS INVALID ON G96 MODE. PLEASE MODIFY PROGRAM.  |
| 2096 | SPINDLE OVERRIDE OR FEEDRATE 0%.   |
| 2097 | MACHINE LOCK ON STATUS.  |
| 2098 | M00 OR M01 COMMAND.  |
| 2099 | M02 OR M30 COMMAND.  |
| 2100 | MACHINE IS IN SERVICE MODE. 1)MACHINE WILL OPERATE WITH DOOR OPEN. 2)SPINDLE WILL NOT START UNLESS THE DOOR IS CLOSED.3)TAPPING OR THREADING MAY NOT WORK UNLESS THE DOOR IS |
| 2101 | SPINDLE TOOL UNCLAMP ALARM   |
| 2102 | MAIN POWER PHASE ALARM   |
| 2103 | M06 OVERTIME ALARM   |
| 2104 | T-CODE COMMAND ERROR   |
| 2105 | ATC OPERATION COMMAND ERROR  |
| 2106 | TOOL POST SEARCH OVERTIME ALARM  |
| 2107 | ATC MAGAZINE ROTATION OVERTIME ALARM   |
| 2108 | ATC DOOR SWITCH ERROR  |

| 2109 | TOOL MAGAZINE SYNCHRO MAL-FUNCTION   |
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| 2110 | ATC INTERLOCK ALARM  |
| 2111 | ATC MAGAZINE GUARD DOOR OPEN   |
| 2112 | MAINTENANCE MODE ON STATE  |
| 2113 | M149 COMMAND ERROR   |
| 2114 | SPINDLE TOOL INTERFERENCE ALARM  |
| 2115 | SPINDLE TOOL NO.IS MISMATCHED  |
| 2116 | MINI-TURRET 180 COMMAND ALARM. MILLING SPINDLE SHOULD BE ORIENTATED BEFORE COMMAND G400 J12.   |
| 2117 | MUST BE ATC 1CYCLE   |
| 2118 | ATC OP MANUAL MODE   |
| 2119 | SPINDLE AND WAITING TOOL NUMBER IS ZERO.   |
| 2120 | SPLASH GUARD DOOR MUST BE OPENED WHEN THE TOOL UNCLAMP OPERATION IS DOING IN MANUAL MODE   |
| 2121 | TOOL NUMBER SELECT KEEP RELAY IS NOT SET PROPERLY.   |
| 2122 | TOOL CHANGER MOTOR BRAKE RELEASE   |
| 2123 | TOOL SEARCH ILLEGAL ALARM  |
| 2124 | M06 COMMAND ILLEGAL POSITION   |
| 2125 | SPINDLE TOOL CLAMP/UNCLAMP ALARM   |
| 2126 | WAITING POT SWITCH ERROR   |
| 2127 | CHANGER ARM POSITION CHECK ALARM   |
| 2128 | MUST BE COMMAND NEXT TOOL NO.  |
| 2129 | ATC OPERATION COMMAND ERROR  |
| 2130 | CONSTANT SURFACE COMMAND ALARM.IN COMPOSITION CONTROL MODE, THE CONSTANT SURFACE CONTROL COMMAND FROM LOWER(UPPER) MUST BE COMMANDED AFTER MILLING ROTATING COMMAND    |
| 2131 | SPINDLE COMMAND ALARM. AFTER SPINDLE SELECTION, SPINDLE ROTATION COMMAND IS VALID(M05/M35/M105/M135). IF SPINDLE TO SELECT IS ROTATING, MUST BE STOP SPINDLE TO SELECT |
| 2132 | ATFER MAIN POWER OFF/ON, C1 AND C2 AXES MUST BE RETURN REF.POINT BY MANUAL, OTHERWISE AUTO.OPERATION IS IMPOSSIBLE.  |
| 2133 | COMPOSITION CONTROL COMMAND ALARM. AFTER SELECT C2-AXIS(M135)FROM UPPER OR C1-AXIS(M35) FROM LOWER, M211 COMMAND IS POSSIBLE.  |
| 2134 | TURRET CONTROL UNIT ALARM. CHECK SERVO CONTORL UNIT IN CONTROL CABINET.  |
| 2135 | LEFT SPINDLE RIGID TAP IS VALID ONLY FOR THE UPPER PATH AND RIGHT SPINDLE RIGID TAP IS VALID ONLY FOR LOWER PATH   |
| 2150 | A-AXIS MOVEMONT IS PROHIBITED IN CHUCKING CLOSED CONDITION   |

| 2161 | SPINDLE WARM UP IS REQUESTED. PLEASE RUNNING ALL SPINDLES |
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|      | MORE THAN 15 MINUETES UNDER 1,000RPM                      |

- 2162 SPINDLE WARM UP IS COMPLETED
- 2165 CHECK HOME POSITION OF EACH UNIT FOR PARTS CATCHER(STOPPER ADV:X64.5, BODY RET:X64.6, BUCKET RET:X65.2, ARM RET:X65.4)

  A-AXIS IS REF.POINT AND Z1,Z2-AIXS IS IN RIGHT POSITION REGION FROM
- 2166 REF.POINT, M310/M311/M256 COMMAND CONDITION :A-AXIS IS REF. POINT AND Z1 AND Z2 AXIS IS IN LEFT POSITION REGION FROM REF.
- 2167 CUTTING FEED COMMAND IS COMMANDED WHEN THE B-AXIS IS NOT CLAMPED YET.
- 2168 RETURN A-AXIS TO THE REFERENCE POINT FOR MOVING Z2-AXIS OR COMMAND M217 TO RELEASE Z2 AXIS INTERLOCK.
- 2169 EXIN DATA READ ALARM.
- 2170 IT IS NOT ABLE TO MOVE Z-AXIS WHEN WAITING POT IS NOT IN THEIR HOME POSITION(WAITING POT UP AND HOME POSITION)
- 2173 LUBRICATION OIL LEVEL IS LOW.
- 2174 TOUCH PROBE UNIT ALARM. BATTERY IS LOW OR SIGNAL LEVEL IS LOW.
- TRANSFERRING WITH FEED FROM THE TURRET UNCLAMP CONDITION WHICH IS IMPOSSIBLE.
- 2176 THIS COMMAND CANNOT BE PERFORMED. PLEASE PERFORM THE REF. POSITION RETURN OF C1 & C2-AXIS BEFORE THIS COMMAND.
- 2177 TOOL SPINDLE OVERLOAD ALARM, PLEASE CHECK CUTTING CONDITION IN PROGRAM.

  C-AXIS HIGH/LOW CLAMP OR UNCLAMP M-COMMAND CONDITION
- 2178 ALARM. THE M88 OR M89,M90(M188 OR M189,M190) COMMAND OF THE OTHER PATH IS VALID IN COMPOSITION CONTROL STATE.

  LOWER TURRET CAN NOT INDEX OR MOVE TO -Z2 DIRECTION IN
- 2179 INTERFERENCE AREA WITH LEFT SPINDLE. PLEASE MOVE THE Z2-AXIS TO THE RIGHT WHERE THE INTERFERENCE WITH LEFT SPINDLE IS NOT X2-AXIS CAN NOT MOVE IN INTERFERENCE AREA WITH LEFT SPINDLE.
- 2180 PLEASE MOVE THE Z2-AXIS TO THE RIGHT WHERE THE INTERFERENCE WITH LEFT SPINDLE IS NOT EXIST.
- 2181 KNOLL COOLANT SYSTEM ALARM@0A@
- Y-AXIS & A-AXIS ARE IN INTERFERENCE AREA. PLEASE CHECK THE INTERFERENCE AREA
- 2185 CHECK HOME POSITION OF EACH UNIT FOR PARTS CATCHER(STOPPER ADV:X64.5, BODY RET:XX64.6, BUCKET RET:X65.2, ARM RET:X65.4@0A@)
- WHEN PARTS UNLOADER IS OPERATIING BY M256 COMMAND, THE Z1, Z2-AXIS CAN MOVE ONLY IN THE LEFT POSITION REGION FROM REF. POINT.
- 2187 RIGHT SPINDLE ROTATION STATE. PLEASE SPINDLE STOP.
- 2188 PROGRAM START M FUNCTION ALARM. PLEASE CHECK M-CODE (M23)

C-AXIS BRAKE NOT RELEASED, PLEASE CHECK C-AXIS UNCLAMP SOLENOIDE VALVE AND PRESSURE SWITCH.

PROGRAM RESTART ERROR BY OPTIONAL STOP. MUST BE IN STATE OF UPPER/LOWER UNIT AND MEM MODE TO RESTART PROGRAM STOPPED BY OPTIONAL STOP ON MEM MODE.

TAIL STOCK INTERLOCK ALARM, PLEASE CHECK THE POSITION OF Z-AXIS AND TAIL STOCK.

THE PROGRAM NUMBER OF UPPER UNIT AND ONE OF LOWER UNIT ARE NOT SAME. PLEASE CHECK PROGRAM NUMBER OR SET K60.1(CHECK

PROGRAM NUMBER) TO 0