

D-M-E INSTALLATION DATA For: GUIDED EJECTION AND RETURN SLEEVES WITH 'DKL' INTERNAL LATCH LOCKS

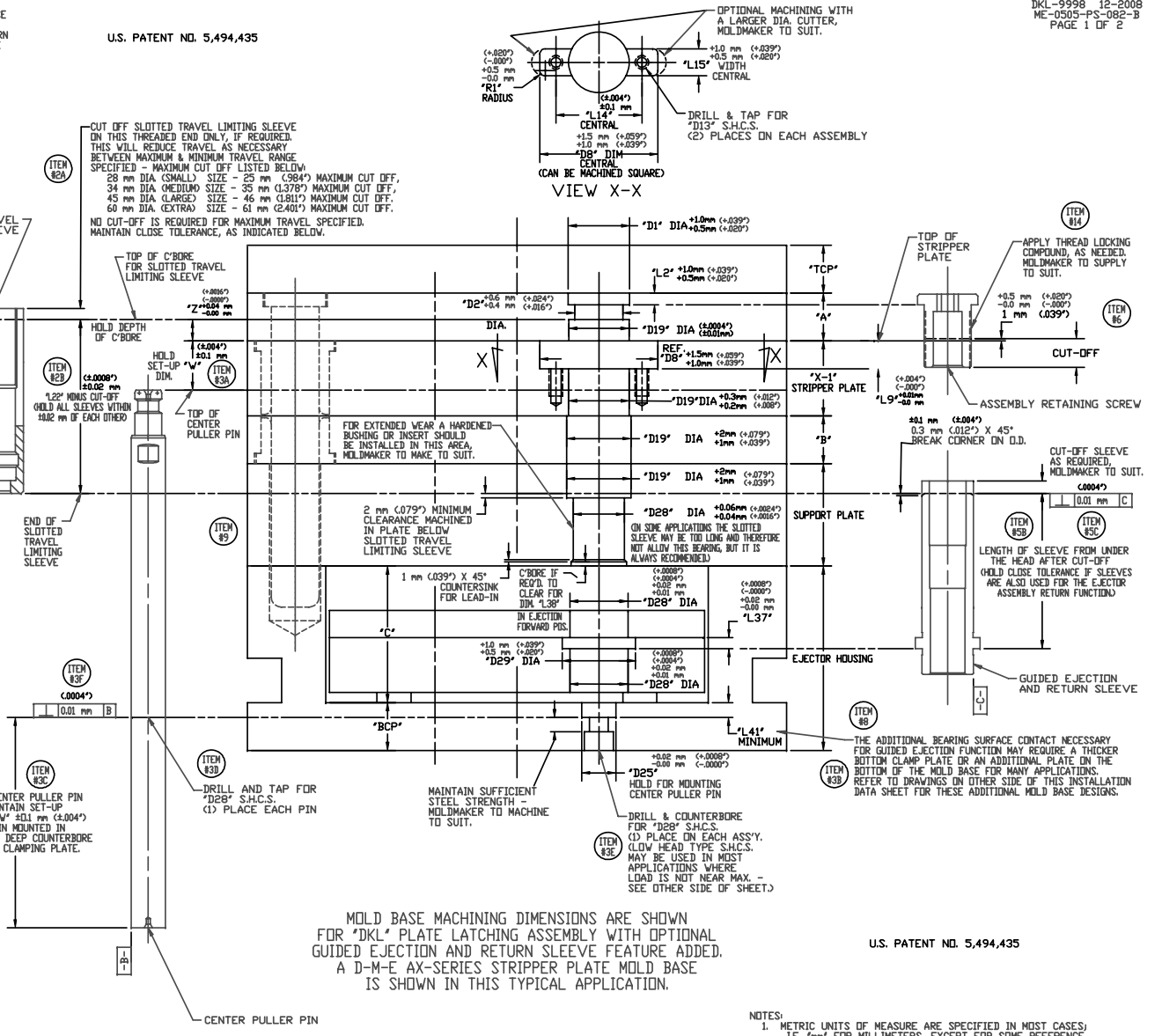
Please read carefully before installing assemblies & components

ADD GUIDED EJECTION AND RETURN PIN FUNCTIONS TO THE 'DKL' INTERNAL LATCH LOCK AND MOLD BASE WITH THESE OPTIONAL SLEEVES. HOWEVER, THESE SLEEVES DO NOT CREATE AN EARLY EJECTOR RETURN SYSTEM THAT IS OCCASIONALLY REQUIRED FOR SOME SPECIFIC MOLD APPLICATIONS. ADDITIONALLY, THESE SLEEVES ARE NOT REQUIRED FOR THE LATCH LOCK TO FUNCTION AS A PLATE LATCHING MECHANISM.

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BASIC APPLICATION DESIGN GUIDELINES AND INSTALLATION DATA:

1. SELECT THE APPROPRIATE 'DKL' INTERNAL LATCH LOCK SIZE - 28 mm DIA. (SMALL), 34 mm DIA. (MEDIUM), 45 mm DIA. (LARGE) OR 60 mm DIA. (EXTRA). BASED ON THE WIDTH OF THE MOLD BASE, REFER TO THE SELECTION CHART ON PAGE 107 OF THE DME MOLD COMPONENTS CATALOG. HOWEVER, LARGE MOLDS, THICK PLATES, OR HEAVY LOAD APPLICATIONS MAY REQUIRE THE NEXT LARGER SIZE ASSEMBLY THAN IS SPECIFIED.
2. SELECT THE APPROPRIATE TRAVEL RANGE FROM THE TWO CHOICES FOR EACH SIZE IN THE CHART ON PAGE 107 OF THE DME MOLD COMPONENTS CATALOG. THIS SELECTION IS BASED ON THE SPECIFIC APPLICATION REQUIREMENTS FOR THE AMOUNT OF TRAVEL THAT MUST OCCUR AT ONE PARTING LINE PRIOR TO THE LATCH BEING RELEASED. THE TOTAL TRAVEL REQUIREMENTS ARE BASED ON THE AMOUNT NEEDED FOR THE APPLICATION AS EXPLAINED ABOVE, PLUS 3 mm (.12") MINIMUM ADDITIONAL ALLOWANCE. THIS ADDED 3 mm (.12") MINIMUM WILL MAKE SURE THE FULL REQUIRED TRAVEL HAS OCCURRED BEFORE THE LATCH LOCK STARTS ITS RELEASING ACTION.
 - A. THE SLOTTED TRAVEL LIMITING SLEEVE CAN BE CUT-OFF TO REDUCE THE TRAVEL BETWEEN THE MAXIMUM AND MINIMUM FOR EACH SIZE. REFER TO INFORMATION IN DRAWING TO RIGHT.
 - B. THE OVER-ALL LENGTH OF THE SLOTTED TRAVEL LIMITING SLEEVES IN EACH MOLD BASE MUST BE THE SAME AND BE CLOSELY HELD TO A TOLERANCE OF ± 0.02 mm (± 0.0008).
 - C. THE CUT-OFF END OF THE SLOTTED TRAVEL LIMITING SLEEVE MUST BE GROUND PERPENDICULAR TO THE OUTSIDE DIAMETER WITHIN 0.01 mm (± 0.0004) AND ALL BURRS MUST BE REMOVED.
3. SELECT THE APPROPRIATE LENGTH FOR THE CENTER PULLER PIN FROM THE TWO CHOICES FOR EACH SIZE IN THE CHART ON PAGE 107 OF THE DME MOLD COMPONENTS CATALOG. THE LENGTH OF THE PIN IS DETERMINED BY THE SPECIFIC APPLICATION INCLUDING THE MOLD BASE PLATE THICKNESS, WHETHER THE PIN IS MOUNTED, ETC. THE CENTER PULLER PIN WILL ALWAYS BE MOUNTED IN THE BOTTOM PLATE OF THE EJECTOR HOUSING OR BCP WHEN THE GUIDED EJECTION AND RETURN SLEEVES ARE ADDED.
 - A. IT IS VERY IMPORTANT TO HOLD THE SET-UP DIMENSION 'M' AND TOLERANCE OF ± 0.1 mm (± 0.004) SMALLER THAN THE DIAMETER OF THE CENTER PULLER PIN.
 - B. IN MANY CASES A THICKER BOTTOM CLAMPING PLATE (BCP) OR AN ADDITIONAL PLATE ON THE BOTTOM OF THE MOLD BASE WILL BE REQUIRED. SEE OTHER SIDE.
 - C. THE LOCATION OF THE MOUNTING COUNTERBORE IN THE BOTTOM CLAMPING PLATE MUST BE ESTABLISHED TO MAINTAIN THE ABOVE SET-UP DIMENSION 'M' ± 0.1 mm (± 0.004).
 - D. AFTER THE CENTER PULLER PIN HAS BEEN CUT-OFF TO THE PROPER LENGTH AND THE TOLERANCE FROM THE LARGE DIAMETER END MUST BE AS INDICATED BY DIMENSION 'DB' ON PAGE 110 OF THE DME MOLD COMPONENTS CATALOG, REFER TO DRAWING AT RIGHT.
 - E. IN MANY CASES EXCEPT WHERE LEAD IS NEAR MAXIMUM LOW HEAD S.H.C.S. CAN BE USED IN THE END OF CENTER PULLER PIN. THIS CAN BE GROUND PERPENDICULAR TO THE OUTSIDE DIAMETER WITHIN 0.01 mm (± 0.0004) AND ALL BURRS MUST BE REMOVED.
 - F. THE CUT-OFF END OF THE CENTER PULLER PIN MUST BE GROUND PERPENDICULAR TO THE OUTSIDE DIAMETER WITHIN 0.01 mm (± 0.0004) AND ALL BURRS MUST BE REMOVED.
4. THE ANSWERS TO THE ABOVE ITEMS (1-3) SHOULD ESTABLISH A SPECIFIC CATALOG NUMBER ASSEMBLY FROM THE CHART ON PAGE 107 OF THE DME MOLD COMPONENTS CATALOG.
5. SELECT THE APPROPRIATE LENGTH FOR THE GUIDED EJECTION AND RETURN SLEEVES FROM THE TWO CHOICES FOR EACH SIZE IN PAGE 111 OF THE DME MOLD COMPONENTS CATALOG. THESE SLEEVES ARE MOUNTED IN THE EJECTOR ASSEMBLY AND GUIDE, AS WELL AS RETURN THE EJECTOR ASSEMBLY TO THE MOLD CLOSED POSITION AS THE MOLD CLOSSES. THE GUIDED EJECTION AND RETURN SLEEVES MUST BE ORDERED SEPARATELY FROM AN APPLICATION TO ADD TO THE INTERNAL LATCH LOCK ASSEMBLY. WHEN USED FOR GUIDED EJECTION AND RETURN, ALL ASSEMBLIES SHOULD HAVE THE GUIDED EJECTION AND RETURN SLEEVES INSTALLED.
 - A. THE MOLD BASE STACK-UP MUST BE ACCURATELY MEASURED TO ESTABLISH THE SPECIFIC LENGTH FOR ALL GUIDED EJECTION AND RETURN SLEEVES.
 - B. A CLOSE TOLERANCE ON THE LENGTH OF THE SLEEVE FROM UNDER THE HEAD TO THE END MUST BE MAINTAINED. IF THE SLEEVES ARE TOO SHORT THEY WILL NOT RETURN THE EJECTOR ASSEMBLY FULLY, BUT IF THE SLEEVES ARE TOO LONG THEY WILL NOT ALLOW THE MOLD TO CLOSE.
 - C. THE CUT-OFF END OF THE GUIDED EJECTION AND RETURN SLEEVE MUST BE GROUND PERPENDICULAR TO THE OUTSIDE DIAMETER WITHIN 0.01 mm (± 0.0004) AND ALL BURRS MUST BE REMOVED.
6. CUT-OFF THE ASSEMBLY RETAINING SCREW ON THE THREADED END ONLY AS INDICATED IN THE DRAWING ON THE FAR RIGHT. THIS WILL PROVIDE AS MUCH THREAD ENGAGEMENT INTO THE SLOTTED TRAVEL LIMITING SLEEVE WITHOUT THE ASSEMBLY RETAINING SCREW INTERFERING WITH THE BODY.
7. A MINIMUM OF FOUR ASSEMBLY RETAINING SCREWS ARE RECOMMENDED PER MOLD. HOWEVER, FOR LARGER MOLDS, THICK PLATES OR AN APPLICATION WHERE LOADS ARE NEAR MAXIMUM, ADDITIONAL ASSEMBLY RETAINING SCREWS SHOULD BE USED. THE MAXIMUM RECOMMENDED LOAD VALUES A BALANCED LOAD MUST BE MAINTAINED TO AVOID COCKING AND BINDING WHICH COULD CAUSE SEVERE OVERLOADING. ONLY ONE SIZE OF THE INTERNAL LATCH LOCK ASSEMBLY SHOULD BE USED IN EACH MOLD BASE.
8. THE CENTER PULLER PIN MUST BE COUNTERBORED INTO THE BOTTOM CLAMPING PLATE TO A DEPTH OF 'L41' MINIMUM, AS SHOWN IN THE DRAWINGS TO THE RIGHT AND ON THE BACK SIDE OF THIS SHEET. THIS COUNTERBORE MUST PROVIDE SUFFICIENT BEARING SURFACE CONTACT TO PROPERLY SUPPORT THE PIN AND ALIGN THE PIN WITH THE OTHER COMPONENTS IN THE ASSEMBLY. THEN IN TURN THE CENTER PULLER PIN SUPPORTS AND GUIDES THE SLEEVES, AS WELL AS THE EJECTOR ASSEMBLY. THIS ADDITIONAL BEARING SURFACE CONTACT FOR THE CENTER PULLER PINS MAY REQUIRE A THICKER BOTTOM CLAMPING PLATE OR THE ADDITION OF ANOTHER PLATE TO THE BOTTOM OF THE MOLD FOR MANY APPLICATIONS.
9. THE MOST COMMON APPLICATIONS FOR THE 'DKL' INTERNAL LATCH LOCKS ARE IN THE D-M-E AX-SERIES STRIPPER PLATE MOLD BASES. ALTHOUGH THE AX-SERIES MOLD BASE APPLICATION IS SHOWN IN THE INSTALLATION DATA, MANY OTHER TYPES OF STRIPPER PLATE MOLD BASES CAN ALSO BE USED WITH THIS INTERNAL PLATE LATCHING MECHANISM. IT IS IMPORTANT TO MAKE SURE THAT THE LEADER PIN LENGTHS IN ALL APPLICATIONS ARE LONG ENOUGH TO FULLY ENGAGE THE STRIPPER PLATE THROUGH ITS FULL TRAVEL. THE LATCH LOCK MECHANISM LATCHES TWO PLATES TOGETHER BUT IS NOT INTENDED TO PROVIDE GUIDANCE. INSTEAD IT RELIES ON THE LEADER PINS IN THE MOLD FOR PROPER ALIGNMENT AND SUPPORT OF THE ACTUATED STRIPPER PLATES.
10. IN THE FULLY LATCHED POSITION THE INTERNAL LATCH LOCK MECHANISM WILL ALLOW MOVEMENT OF APPROXIMATELY 0.4 mm (.016") FOR THE 28 mm DIA. AND 34 mm DIA. ASSEMBLIES AND APPROXIMATELY 0.5 mm (.020") FOR THE 45 mm DIA. AND 60 mm DIA. ASSEMBLIES.
11. INJECTION MOLDING MACHINE MOLD OPENING SPEED MAY HAVE TO BE REDUCED IN ORDER TO MAKE SURE THAT EXCESSIVE SHEAR DOES NOT OCCUR.
12. THE INTERNAL LATCH LOCK IS NOT RECOMMENDED FOR SEVERE LOAD APPLICATIONS.
13. THE 'DKL' INTERNAL LATCH LOCK MUST NOT BE EXPOSED TO TEMPERATURES THAT EXCEED 180°C (350°F) AT ANY TIME.
14. APPLY A THREAD LOCKING COMPOUND TO EACH OF THE THREADED AREAS TO PREVENT LOOSENING, AS REQUIRED. MOLDBAKER TO SUPPLY TO SUIT.
15. SPRINGS MUST NOT BE USED ON THE PARTING LINES BEING LATCHED SINCE THEY COULD CAUSE EXCESSIVE WEAR ON THE PINS & CAMS AND POSSIBLE COCKING AND BINDING OF THE PLATES.
16. THESE OPTIONAL GUIDED EJECTION AND RETURN SLEEVES, ALTHOUGH NOT REQUIRED FOR THE INTERNAL LATCH LOCK, CAN ADD TWO FUNCTIONS TO THE MOLD BASE THAT ARE TYPICALLY REQUIRED IN MOST MOLDS. THESE OPTIONAL SLEEVES CAN ADD GUIDED EJECTION AND EJECTOR ASSEMBLY RETURN FUNCTIONS TO THE MOLD BASE. HOWEVER, THESE SLEEVES DO NOT CREATE AN EARLY EJECTION RETURN SYSTEM THAT IS OCCASIONALLY REQUIRED FOR SOME SPECIFIC MOLD APPLICATIONS.
17. METRIC UNITS OF MEASURE ARE SPECIFIED IN MOST CASES, I.E. "mm" FOR MILLIMETERS, EXCEPT FOR SOME REFERENCE DIMENSIONS AND TOLERANCES WHICH ARE ALSO SPECIFIED IN INCHES AND MARKED (") IN PARENTHESES.
18. FOR ALL DIMENSIONAL SPECIFICATIONS AND OTHER INFORMATION REFER TO THE 'DKL' INTERNAL LATCH LOCK BROCHURE, PAGES 107 THROUGH 111 OF THE DME MOLD COMPONENTS CATALOG, AS WELL AS BOTH SIDES OF THIS SHEET.
19. APPROPRIATE ALL METAL-TO-METAL CONTACT AREAS INITIALLY AND PERIODICALLY AS REQUIRED. GOOD GRADE OF MOLDBAKERS NON-MELTING TYPE GREASE FOR THE APPROPRIATE TEMPERATURE SHOULD BE USED.



MOLD BASE MACHINING DIMENSIONS ARE SHOWN FOR 'DKL' PLATE LATCHING ASSEMBLY WITH OPTIONAL GUIDED EJECTION AND RETURN SLEEVE FEATURE ADDED. A D-M-E AX-SERIES STRIPPER PLATE MOLD BASE IS SHOWN IN THIS TYPICAL APPLICATION.

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- NOTES:
1. METRIC UNITS OF MEASURE ARE SPECIFIED IN MOST CASES, I.E. "mm" FOR MILLIMETERS, EXCEPT FOR SOME REFERENCE DIMENSIONS AND TOLERANCES WHICH ARE ALSO SPECIFIED IN INCHES AND MARKED (") IN PARENTHESES.
 2. FOR ALL DIMENSIONAL SPECIFICATIONS AND OTHER INFORMATION REFER TO 'DKL' INTERNAL LATCH LOCK SECTION, PAGE 107 THROUGH 111 OF THE DME MOLD COMPONENTS CATALOG, AS WELL AS BOTH SIDES OF THIS SHEET.

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INSTALLATION DATA For:
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WARNING

FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY

THE DKL INTERNAL LATCH LOCK IS INTENDED TO BE USED FOR STRIPPER PLATE CONTROL, AND IS INTENDED TO BE ACTUATED BY THE OPENING AND CLOSING MOTION OF THE MOLD AND INJECTION MOLDING MACHINE PLATENS.

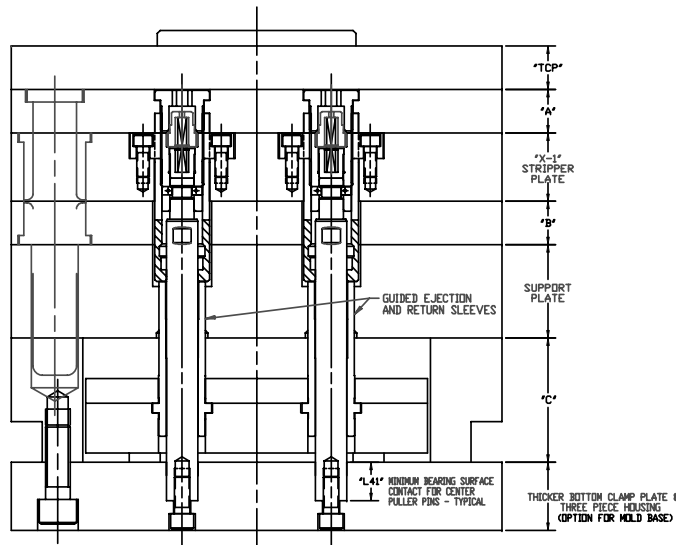
MACHINE GUARD DOORS MUST BE PRESENT AND INTERLOCKED WITH THE MOTION OF THE INJECTION MACHINE PLATENS.

FAILURE TO COMPLY COULD CAUSE SERIOUS INJURY TO PERSONNEL.

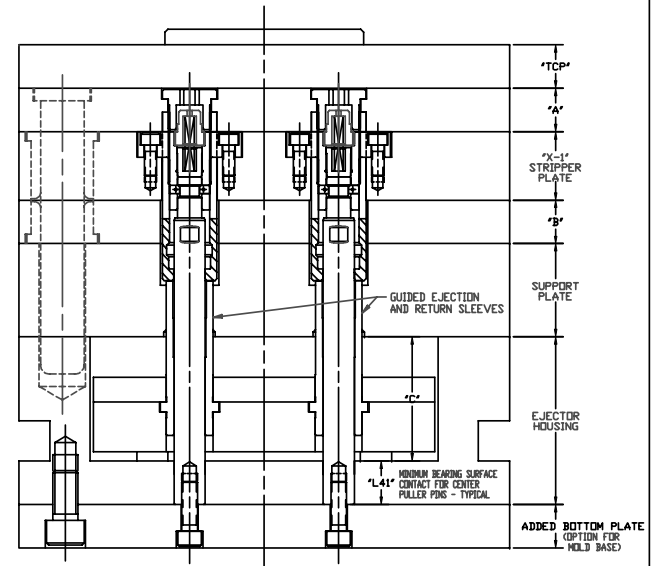
CARE MUST BE TAKEN WHEN INSTALLING, ADJUSTING OR SERVICING THE DKL INTERNAL LATCH LOCK, AS IMPROPER HANDLING OR USE MAY RESULT IN EQUIPMENT DAMAGE AND POSSIBLE INJURY TO PERSONNEL.

TO AVOID DAMAGE, MISUSE OR PERSONAL INJURY DURING INSTALLATION, ADJUSTMENT OR SERVICING OF THE DKL INTERNAL LATCH LOCK:

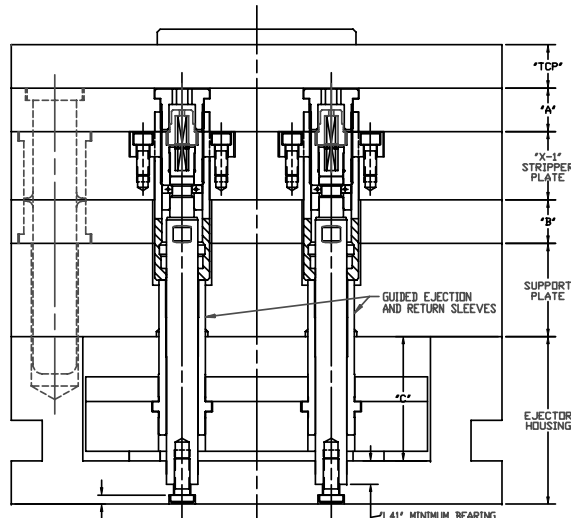
1. DO NOT EXPOSE THE DKL INTERNAL LATCH LOCK TO TEMPERATURES IN EXCESS OF 300 °F (150 °C) AT ANY TIME.
2. ALLOW DKL INTERNAL LATCH LOCK PRODUCT SURFACES TO COOL DOWN TO ROOM TEMPERATURE BEFORE ADDING LUBRICANT.
3. WHEN SERVICING THE DKL INTERNAL LATCH LOCK ASSEMBLY AND/OR REPLACING THE CAM FINGERS WEAR PROTECTIVE GLOVES, PROTECTIVE GOGGLES OR A PROTECTIVE FACE SHIELD.
4. DO NOT EXCEED SPECIFIED LOAD LIMITS FOR THE INTENDED DKL INTERNAL LATCH LOCK ASSEMBLY.



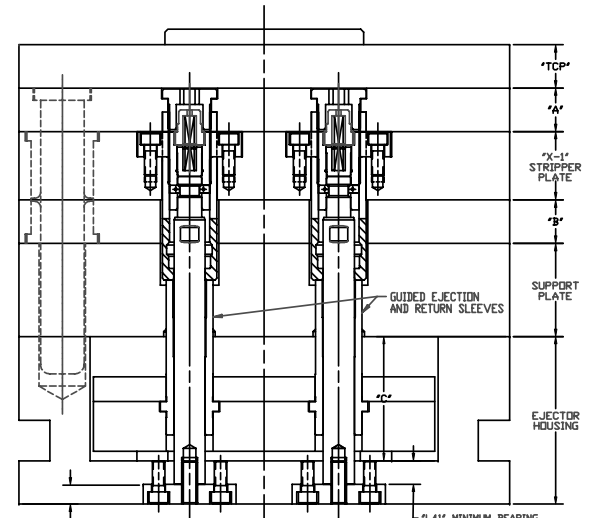
GUIDED EJECTION AND RETURN SLEEVES OPTION SHOWN IN A D-M-E AX-SERIES STRIPPER PLATE MOLD BASE. OPTIONAL THICKER BOTTOM CLAMP PLATE IS SHOWN ON THE MOLD BASE WHICH CAN BE ORDERED WHEN NECESSARY TO PROVIDE THE MINIMUM SPECIFIED "L41" BEARING SURFACE FOR THE CENTER PULLER PINS.



GUIDED EJECTION AND RETURN SLEEVES OPTION SHOWN IN A D-M-E AX-SERIES STRIPPER PLATE MOLD BASE. OPTIONAL ADDITIONAL BOTTOM PLATE IS SHOWN ON THE MOLD BASE WHICH CAN BE ORDERED WHEN NECESSARY TO PROVIDE THE MINIMUM SPECIFIED "L41" BEARING SURFACE FOR THE CENTER PULLER PINS.



OPTIONAL LOW HEAD SHCS (2) PLACE EACH PIN. GUIDED EJECTION AND RETURN SLEEVES OPTION SHOWN IN A D-M-E AX-SERIES STRIPPER PLATE MOLD BASE. OPTIONAL LOW HEAD SHCS ARE SHOWN IN THE MOLD BASE FOR RETAINING THE CENTER PULLER PINS WHEN NECESSARY TO PROVIDE THE MINIMUM SPECIFIED "L41" BEARING SURFACE FOR THE PINS. (LOW HEAD SHCS CAN BE USED IN MOST APPLICATIONS WHERE LOAD IS NOT NEAR THE MAXIMUM)



OPTIONAL RETAINING PLATE WITH SET SCREW AND (2) SHCS. FOR RETAINING PIN (2) PLACE EACH PIN. MOLDMAKER TO MACHINE, MAKE AND SUPPLY TO SUIT. GUIDED EJECTION AND RETURN SLEEVES OPTION SHOWN IN A D-M-E AX-SERIES STRIPPER PLATE MOLD BASE. OPTIONAL RETAINING PLATES EACH WITH A SET SCREW AND (2) SHCS. ARE SHOWN IN THE MOLD BASE FOR RETAINING THE CENTER PULLER PINS WHEN NECESSARY TO PROVIDE THE MINIMUM SPECIFIED "L41" BEARING SURFACE FOR THE PINS.

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