



شركة الكحيمي للصناعات المعدنية المحدودة
Al Kuhaimi Metal Industries Ltd.

MAINTENANCE OF HOLLOW METAL DOORS AND FRAMES

This document is intended to serve as a general outline of maintenance activities needed for standard steel doors and frames. However, it should be noted that the door and frame are virtually maintenance free. Maintenance will be, for the most part, associated with the accessories and hardware attached to the door and frame.

Maintenance of any product is important and necessary to obtain the maximum benefits of product service and longevity. Steel door and frame assemblies are not different. In fact, in some cases where the door and frame assembly is used as a "fire rated" barrier or a "leakage rated" smoke barrier, proper maintenance is crucial. Basic maintenance to ensure the proper functioning of the assembly is imperative and well worth the effort to provide for human life safety.

I.A AREAS TO BE INSPECTED

The following items should be periodically checked. The frequency with which these checks are performed must be established at the discretion of the building owner. Since doors in different areas of a building access service different traffic, the frequency of periodic inspections would occur respectively.

1. Hinges

Check all hinges for loose attaching screws, hinge pin wear or other notable defects. Service the hinges or remove defective parts and replace per the manufacturer's recommendation. The door should always swing freely and smoothly without obstruction from the opened to latched (when latching device is used) position.

2. Locksets, Panic Devices, Fire Exit Hardware

Check all locksets for loose attaching screws, latch wear or other notable defects. Service the lockset or remove defective parts and replace per the manufacturer's recommendations. The door should always latch freely and smoothly without obstruction. Self latching devices should always function freely and smoothly as the door swings into the closed position. Additional force should not be needed to achieve latching. Mutes (silencers) should be replaced when latch operation is compromised by wear.

Note: Electronically controlled locking devices can be referred to its manual for its proper operation & maintenance.

3. Strike Plate

The strike plate should be firmly attached to the frame or inactive leaf of a pair of doors. Check for loose screw and/or other notable defects. Service or remove and replace per the manufacturer's instructions.

4. Closing Devices

Check all closing devices for loose attaching screws, linkage arm and pin wear, fluid leakage or other notable defects. Service the device or remove defective parts and replace following the manufacturers recommendations. The primary and secondary closing speed adjustments should also be set and maintained in accordance with the manufacturer's recommendations. The device should allow the door to operate freely and smoothly throughout its entire swing range and positively latch (if equipped) or remain in the closed position.

5. Flush Bolts

Check all flush bolts for loose attaching screws, rod bolt adjustment and strike plate (on both door and frame if so equipped) attachment. Service the devices or remove defective parts and replace following the manufacturer's recommendations. The rod bolts should retract, extend and engage the strike or keeper hole freely and smoothly for both manual and/or automatic flush bolt.

6. Glass Lites

The glazing material should be checked for cracks and/or missing pieces of glazing. The glazing mounting frame should be checked to assure all attaching screws are tight and the unit is securely attached to the door. Service the glass lite or remove defective parts and replace by following the manufacturer's recommendations. Also be sure to use approved safety glass in appropriate applications / locations, or fire rated glass and glazing in fire doors, windows or lites.



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7. Door and Frame Finish

A general visual inspection of the door and frame finish should be periodically conducted. Any excessive finish defects should be repaired and repainted. Adequate protection is needed to prevent the product from rusting prematurely and shortening its service life.

8. Unobstructed Operation

Fire rated and/or smoke control assemblies are specified and installed to meet 'safety to life code requirements'. It is imperative that these assemblies receive regularly scheduled maintenance checks for all of the above items. Additionally, for the assembly to serve its purpose of stopping fire and/or smoke propagation it must function freely with the ability to positively latch in the closed position. Therefore, propping or blocking these doors in an open position is in violation of intended use and purpose as established in building codes. These doors must not be obstructed in any fashion preventing them from functioning as intended.

9. Gasketing / Weather-stripping

A visual and operational inspection is periodically necessary for gasketed or weatherstripped areas such as perimeter seals, threshold seals, door bottom, etc. Inspect for signs of deterioration such as splitting, cracking or deforming of flexible components. Install replacement components as needed.

Inspect operational integrity by the following method:

Gasketing should be positioned to create proper contact along the door's entire perimeter. The test for proper contact is usually done with common letterhead paper. The paper should be firmly held in place by inserting it between the door and gasket and then closing the door. If the paper is not firmly held in place, the seal is inadequate. The paper test should be conducted along the entire perimeter.

PAINT PROBLEMS

PAINT PEELING TO BARE METAL

Two conditions exist which must be considered when evaluating paint peeling to bare metal.

PRIME PAINT ONLY

If the product is only prime painted, then poor adhesion between the primer and bare metal has occurred. This can usually be attributed to inadequate surface preparation before prime painting. The bare metal must be adequately prepared to ensure good primer paint adhesion.

The door should be completely sanded, washed with an appropriate solvent and re-primed. The sanding and washing operations should provide an adequate surface to assure good primer adhesion.

PRIME PAINT AND TOP (FINISH) COAT

The failure could be caused by either poor surface preparation before prime painting or the use of a non-compatible finish paint which has reacted with the primer and lifted all paint to bare metal. In either case the corrective measures would be the same. The door should be completely sanded and washed with an appropriate solvent. The door should then be re-primed painted. Lightly sand the prime coat, wipe and finish paint with a compatible top coat.

In all cases, when the door is being prepared for top finish coat painting the surface should be cleaned. Use the same solvent that will be used to thin topcoat paint and thoroughly clean all surfaces to be painted.



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PAINT IN TAPPED HOLES

Both hollow metal doors and frames have various holes which are drilled and tapped. These holes are in various components such as reinforcements. All of the components are brought together as an assembly prior to the painting operation.

The best method of cleaning the tapped holes is to use an actual thread tap which matches the screw thread. It will easily cut through and clean the paint build up by simply running the tap in and out of the hole. If the build up is not as great and extra screws are available the screw can be run in and out of the hole to clean minor build up prior to final screw installation.

WATER STAIN DAMAGE

For products which are prime painted only, the affected areas should be adequately sanded. If necessary the area should be sanded to bare metal. The entire door/frame surface should then be lightly sanded and 'feathered' into any heavily sanded areas. The entire surface should then be re-prime painted.

For products which are finish painted, the affected areas should be adequately sanded. If necessary the area should be sanded to bare metal. The entire remaining finish painted area should then be lightly sanded and 'feathered' into any heavily sanded areas. If the bare metal is showing these areas should be re-prime painted and lightly sanded to 'feather' into the lightly sanded finish painted areas. The product should then be re-finish painted.

In all cases, when the door is being prepared for top, finish coat painting the surface should be cleaned. Use the same solvent that will be used to thin topcoat paint and thoroughly clean all surfaces to be painted.

- A) The following are not intended to replace any maintenance and inspection programs that may be in effect on the site where doors are in use. All operating points of the door should be checked after 1 month of operation for wear of binding.
- B) Periodic inspection must be set up at 6 months maximum intervals, to check for possible malfunctions in the door.
- C) Painted areas must be checked periodically and any damaged areas repainted.

**CAUTION!!! DO NOT PAINT ANY MOVING PARTS.
DO NOT PAINT OR REMOVE FIRE LABELS IF ANY.**

Should problems arise that are covered by this manual call the factory.

When calling the factory, always have the order number or job number of the door in question.

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