Steel Door Set Operation & Maintenance Manual

Operation Procedure

1 Active Leaf or Single Doors-sash lock c/w cylinder and/or thumb turn and lever handles-

The lock is operated by a key inserted into the cylinder, or by rotation of the thumb turn. Neither operation requires the use of any degree of force; as long as the key is carefully inserted it will rotate freely after the first few operations. Initial rotation may feel a little ‘gritty’ however this is perfectly normal and will disappear with repeat use.
The latch is retracted by depressing the lever handles, which will return to the latch point by the incorporation of a ‘sprung rose’. The latch has a sprung ‘beak’ and the leaf will slam shut if required, without depressing the lever handles.
Locking is achieved by rotation of the key or thumb turn towards the frame leg nearest the lock.
Unlocking is achieved by rotation in the opposite direction.
If the leaf is fitted with a standard door closer, it will automatically close to the frame rebate when released.
If the leaf is fitted with a latching door closer, it will automatically close to the frame rebate when released, and slam shut.

2 Active Leaf or Single Doors-panic latch/ panic bolt with panic bar-

The latch or bolts are released by depressing the horizontal panic bar. A firm and positive action is required, but no force need be applied. If an outside access device is fitted, the door can be unlocked and opened from the outside of the building.
The outside access device lock is operated by a key inserted into the cylinder; locking is achieved by rotation of the key towards the frame leg nearest the lock. Unlocking is achieved by rotation in the opposite direction.
To release the latch, depress the external lever handle or rotate the knob away from the frame leg nearest the lock
If the leaf is fitted with a standard door closer, it will automatically close to the frame rebate when released.
If the leaf is fitted with a latching door closer, it will automatically close to the frame rebate when released, and slam shut.
If the leaf is fitted with a hold open door closer, the leaf will remain open until manually released.

3 Inactive Leaf to Double Door Set-panic bolt with panic bar-

The bolts are released by depressing the horizontal panic bar. A firm and positive action is required, but no force need be applied.

4 Inactive Leaf to Double Door Set – no ironmongery-

Where the door leaf is not part of a fire escape door set it will not normally be fitted with any supplementary ironmongery. However, as a standard feature the leaf will contain flush mounted shoot bolts, fitted at the top and bottom of the leading edge of the leaf.

Manual flush bolts are engaged or disengaged by operation of a catch recessed into the door leaf (accessible only in the leading edge of the leaf when the active door leaf is opened).

If the leaf is fitted with a standard door closer, it will automatically close to the frame rebate when released.
If the leaf is fitted with a latching door closer, it will automatically close to the frame rebate when released, and slam shut.

For a pair of doors (double; leaf & ½) a leaf selector is required to ensure that the inactive leaf closes first, followed by the active leaf, to ensure proper latching and locking of the active leaf ironmongery.

Flush bolts that may be fitted and are operated by pulling the lever on the leading edge of the door, these flush bolts are only fitted to inactive leafs

The door sets may be used in single-acting, single or double-leaf, latched or unlatched, metal framed, metal leaf door sets, at various leaf dimensions.

Door assemblies are approved to be installed in brick, block, structural steel openings, masonry or plasterboard clad stud with a fire resistance at least equal to that of the door set to be installed(for fire rated doors).
The door set shall not be altered or modified in any way nor should the supplied hardware be changed, removed or additional items (not specified) fitted. To do this may invalidate any certification.

All apertures will be factory prepared. No site cutting of apertures is permitted.

Locks and latches shall be appropriate for the steel doors specification.

A. Maintenance Instructions

Please note that Steel Doors Sets are engineered to function satisfactorily with the minimum of routine periodic maintenance. However, please implement the following advice periodically to ensure the preservation of your Steel Door:

1. Check leaf and frame for damage.

2. If painted surfaces become chipped or scratched, they should be immediately repaired to prevent the development of rust points (refer to D. Repairs to Scratches or Chips).

3. Wash down the frame rebates to ensure that there is no build up of grit and dust that might damage the capping and leading edge paint finishes (Ref: C 1).

4. Check door seals are in place and wipe down with a damp cloth if necessary. Replace damaged seals to prevent light and water ingress.

5. Check all mechanical fixings to ironmongery and hinges are securely fixed and not loose.

6. Door hinges are rated for hundreds of thousands of operations; however we recommend regular oiling of the hinge joints with a light grade of machine oil. After application, wipe up any excess oil to prevent staining or slip hazards.

7. Where rust stain from the hinge pins discolours the hinge leaves, wipe down to remove the rust, and instead of oiling, apply a light coating of Petroleum Jelly to seal the joint and hinge plate.

8. Handles might benefit from light oiling at the joint if they appear stiff. Prior visual inspection is recommended to ensure that there is no binding or damage- i.e. simply oiling a faulty or damaged handle will not repair it or cause it to operate smoothly necessarily.

9. Lock cylinders should only be lubricated with Teflon or Graphite based oil.

10. Inspect thresholds for damage and replace if necessary. This is particularly relevant where ironmongery or shoot bolts relay on the threshold for auto bolting re-engagement or for security keeps.

11. Ensure door closers and friction stays are correctly adjusted to manufacturers' recommendations. Frequency of use is the major determining factor in making a risk assessment for the frequency of periodic maintenance. For up to 20 cycles a day, conduct maintenance at least every 6 months; for up to 50 cycles a day, conduct maintenance monthly. Re-assess this periodically based on local conditions. Regardless of frequency of maintenance one of the most important routine tasks to ensure the preservation of the door set is to sweep the floor in front of the door regularly to remove swarf, grit and obstructions that might score or scuff the bottom capping and damage the paint finish and capping metal when the door leaves swing in operation.

B. Maintenance of Finishes

1. Where doors are supplied in a primed finish, they must be final site painted immediately to prevent degradation of the protective value of the primer coat.

Follow these additional rules for Polyester Powder Coated doors and frames:

C. Cleaning

1. A cleaning routine must be established based on risk assessment. It is highly recommended that these doors are systematically cleaned every two weeks.

2. The purpose of cleaning is to remove grit and abrasive substances that might score the door or ironmongery, and liquids or chemicals that might stain or erode the paint finishes.

3. A soft brush, sponge or chamois leather should be used in conjunction with a mild cleaning solution. As with car cleaning, regularly refresh with clean water to prevent re-applying grit and dirt to the door being washed.

4. Be sure never to use abrasive cleaners; nor solvents, acids, alkalis or bleach or chlorine based chemicals.

D. Repairs to Scratches or Chips

1. Always entrust the following repair advice to a Competent Person, and use automotive quality products. Any painting should be done in a well ventilated area.

2. Mask off the door and frame surrounding the repair area, taking particular care to protect hardware and ironmongery.

3. Rub down the damaged area using 150 grade dry production sandpaper. Make sure to sand slightly beyond the extremities of the area to be repaired, and so as to leave a ridge free prepared area.

4. Use a grey coloured spray cellulose primer to prepare the area to be repaired. Leave the primer to dry before progressing any further.

5. Use a light grade dry production sand paper to key the surface of the primed area, prior to using a lint cloth to remove all local surface dust from the area to be repaired.
6. Apply a single spray cellulose top coat in a light and free flowing motion. Leave the new paint to dry as required, applying further coats to achieve the desired finish.

7. After application of the final top coat, leave the paint to harden overnight before allowing free access to the repaired area.

E. Repairs to Indentations

1. Always entrust the following repair advice to a Competent Person, and use automotive quality products. Any painting should be done in a well ventilated area.

2. Rub down the damaged area using 80 grade dry production sandpaper. Make sure to sand slightly beyond the extremities of the area to be repaired, and so as to leave a ridge free prepared area.

3. Apply a filler compound to the indentation, smoothing off so as to be reasonably flush to the required surface level surrounding the indentation. Leave the filler to dry to the manufacturer's recommendations.

4. Then rub down and repeat this process until a smooth, level repair is completed.

5. Mask off the door and frame surrounding the repair area, taking particular care to protect hardware and ironmongery.

6. Rub down the repaired area using 150 grade dry production sandpaper. Make sure to sand slightly beyond the extremities of the area to be re-painted, and so as to leave a ridge free prepared area.

7. Use a grey coloured spray cellulose primer to prepare the area to be re-painted. Leave the primer to dry before progressing any further.

8. Use a light grade dry production sand paper to key the surface of the primed area, prior to using a lint cloth to remove all local surface dust from the area to be re-painted.

9. Apply a single spray cellulose top coat in a light and free flowing motion. Leave the new paint to dry as required, applying further coats to achieve the desired finish.

10. After application of the final top coat, leave the paint to harden overnight before allowing free access to the repaired area.