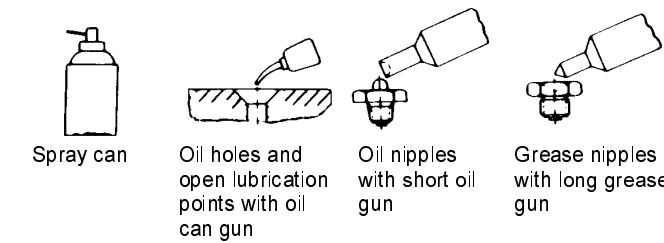


This graphic training aid (GTA) is designed to help you maintain the Heidelberg Offset Press (Model SOR). Be aware, however, that you must give priority to and follow the maintenance instructions on the press and in the press instruction manual. Use only those lubricants indicated on the machine's lubrication plate.

Types of Lubrication Points



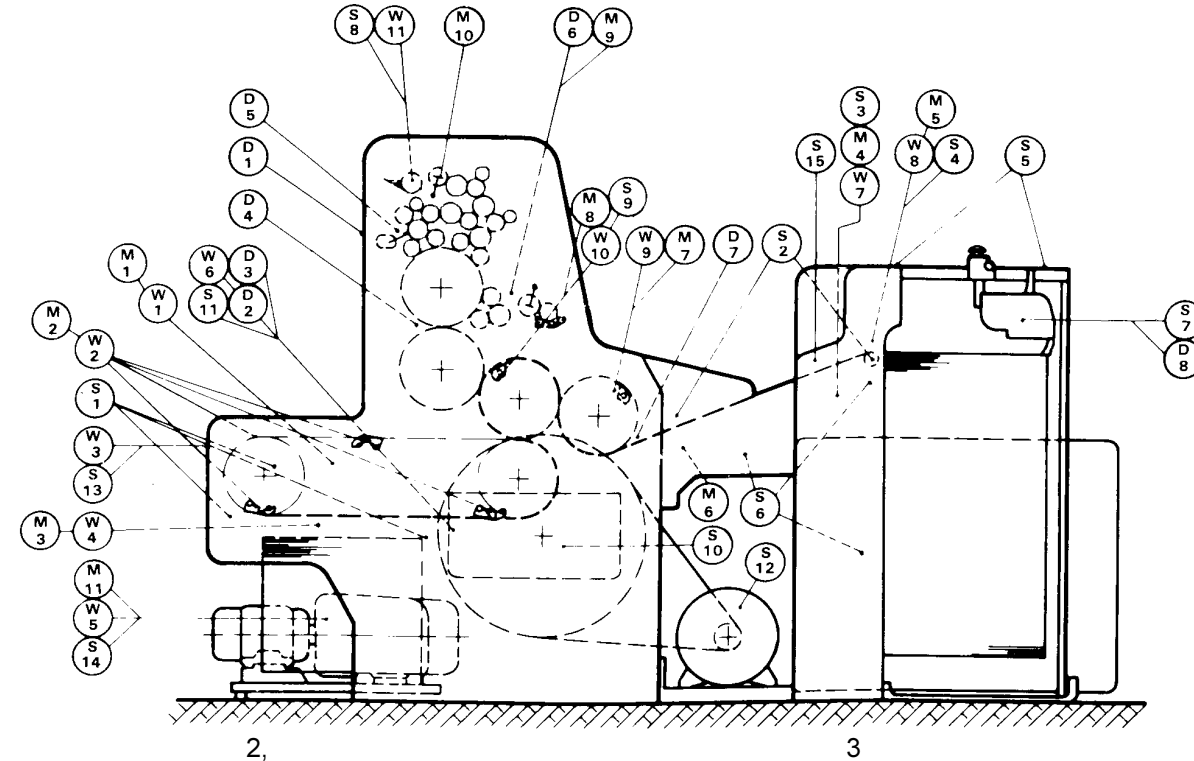
In this publication, OS means the operator side of the press; D.S. means drive side. The term "drive side" is the same as "gear side".

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Heidelberg Offset Press (Model SOR)

Legend:

D – Daily Maintenance **W** – Weekly maintenance
M – Monthly maintenance **S** – Semiannual maintenance



Daily maintenance

1. Press the button on the central lubrication system once every 4 hours for at least 10 seconds while the press is running.
2. Turn the oil filter handle at the gearbox a few times.
3. Check the oil level in the gearbox before starting the press. Ensure the oil level is at the upper line in the gage glass.
4. Check/clean the bearers. **Do not use solvents containing acids!**
5. Clean the wash-up blade after washing up.
6. Whenever you wash the dampening rollers, dry the ball bearings and check their lubrication.
7. Clean the photoelectric cells of the electronic front alignment control.
8. Clean the lifting suckers of the suction head. **Do not oil them!**

Weekly maintenance

1. Delivery: Oil one hole on the delivery side frame (DS).
2. Inside delivery:
 - Grease one nipple on each of the three delivery systems.
 - Oil the chains.
3. Clean the air filter
4. Oil two holes behind the cover (one on the DS and one on the OS).
5. Clean the compressor filters in accordance with maintenance instructions, and check the oil level.
6. Remove the screw below the oil filter handle at the gearbox (while the press is at a standstill), and drain the oil residue.

Weekly maintenance (contd)

7. Feeder: Grease one nipple behind the cover (DS) for the clutch bearing.
8. Sheet transport: Oil one hole on the rod head at the double-sheet detector.
9. Register feed drum: Grease two nipples and oil six holes.
10. Impression cylinder:
 - Spray one grease nipple on the gripper opening lever.
 - Spray the grippers.
11. Inking unit (OS): Oil one nipple on the fountain roller's handwheel.

Monthly maintenance

1. Delivery: Grease two nipples outside the delivery side frame (DS), and oil one nipple on the upper side.
2. Inside delivery: Grease three nipples on each of the three delivery gripper systems.
3. Oil three holes behind the cover (OS).
4. Oil feeder behind the cover (DS).
5. Oil the chain and the open lubrication point on cam follower.

Monthly maintenance (contd)

5. **Sheet transport:**
 - Oil one hole on the center bearing of the air blast rod (on the front edge of the pile).
 - Oil two holes on each of the two forwarding rollers.
 - Oil two open lubrication points on the cam followers behind the cover (DS).

Monthly maintenance (contd)

5. Sheet transport:

- Oil one hole on the center bearing of the air blast rod (on the front edge of the pile).
 - Oil two holes on each of the two forwarding rollers.
 - Oil two open lubrication points on the cam followers behind the cover (DS).
6. Underneath feed table: Oil the chain.
 7. Register feed drum: Grease nine nipples.
 8. Impression cylinder: Grease six nipples on the gripper bar.
 9. Dampening unit:
 - Grease two nipples (one on the DS and one on the OS) on each of the three dampening rollers.
 - Grease two nipples (one on the DS and one on the OS) on the upper dampening roller's bearings.
 - Grease two nipples (one on the DS and one on the OS) on the vibrator roller lever.
 10. Inside inking units:
 - Grease two nipples (one on the DS and one on the OS) on the bearings of the vibrator roller lever.
 - Oil one nipple on the ratchet for the ink fountain roller.
 11. **Important!** Change the compressor oil. Do the first oil change after 200 working hours. Complete further oil changes every 600 working hours.

Semiannual maintenance

1. Inside delivery:
 - Grease one nipple on the power-adjustment cam.
 - Grease one nipple on the gripper-opening cam.
 - Oil two nipples on the suction slow-down drum.
 - Grease one nipple on the pile-drive bearing.
 - Grease two nipples (one on the DS and one on the OS) on the pile transport's rear bearings.
 - Oil two open lubrication points (one on the DS and one on the OS) on the gears at the rear bearing.
 - Oil two open lubrication points (one on the DS and one on the OS) on the pile transport front bearing.
2. Feeder side frame (OS):
 - Oil one nipple on the side lay bearing.
 - Grease one nipple on the camshaft bearing.
 - Grease one nipple on the tape-drive shaft bearing.
3. Behind the feeder cover (DS): Grease one nipple on the forwarding roller shaft bearing.
4. Sheet transport:
 - Grease one nipple on the forwarding roller shaft center bearing.
 - Oil one hole on the air valve lever on the forwarding roller shaft (DS).
 - Oil one hole on the forwarding roller shaft bearing (OS).
 - Oil one hole on the small gear inside the side frame behind the handwheel (OS).
5. On top of the feeder cover: Grease six nipples (four on the DS and two on the OS).

Semiannual maintenance (contd)

6. Underneath feed table:
 - Grease four nipples (two on the DS and two on the OS) on the side standard.
 - Grease eight nipples on the bearings for the lower tape guide shaft.
 - Oil two holes on the front lay driver-rod heads.
 - Oil two holes (one on the DS and one on the OS) on the cam roller bearing on the front lay drive.
 - Oil two holes (one on the DS and one on the OS) on the front lay shaft bearing.
 - Oil two holes (one on the DS and one on the OS) on the front lay shaft rear bearing.
7. Feeder: Grease one nipple on the suction head.
8. Inking unit (OS): Oil one nipple on the handwheel for ink feed adjustment.
9. Impression cylinder: Oil twelve holes on the impression cylinder.
10. Grease one nipple on the bearing for the sprocket wheel at the suction drum carriage (under the feed table).
11. Change the oil in the gearbox one year after the press is installed. From this point on, change the oil only every two years.
12. Ensure an electrician performs maintenance on the motors.

Semiannual maintenance (contd)

13. Replace the filter in the air filter unit.
14. Replace the compressor filters.
15. Oil two holes (one on the DS and one on the OS) on the transport roller frame's bearing.

UNIT	CHECK FOR	ACTION
1. Suction Head		
Hoses	Loose connections Breaks	Tighten *
Suction feet Governor foot	Wears and cracks Inadequate operation	Replace *
Pile height and upper limit switches	Inadequate operation	*
Rotary valve	Inadequate operation	*
Cams and cam followers	Wear	*
2. Feeder		
Elevator chains	Wear and breaks	*
Sprockets	Wear and breaks	*
Side standard shaft	Wear and breaks	*
Lower limit shaft	Inadequate operation	*
Cams and cam rollers	Wear and breaks	*
Forwarding roller	Adjustment	Adjust if necessary
Double sheet detector	Damage Inadequate switch	* *
3. Tape Table		
Tapes	Wear and cuts	*
Table trimmings	Tension Damage Adjustment	Adjust if necessary * Adjust if necessary
* Annotate DA Form 2404		

UNIT	CHECK FOR	ACTION
4. Stock Register		
Side guide	Damage Inadequate operation	* *
Side guide-mounting shaft	Damage	*
Register feed drum	Damage Adjustment	* Adjust if necessary
5. Inker		
Ductor cam and follower	Wear	*
Form roller operative	Wear Adjustment	* Adjust if necessary
Vibrator cam	Wear and shaft scoring	*
Fountain roller drive	Inadequate operation	*
Ink rollers	Flat spots and cuts	*
6. Water Motion		
Rollers	Damage	*
Drive gears	Mesh and water	*
Water pan	Leaks	*
Water container bottle	Leaks	*
Tubing	Breaks, cracks, and leaks	*
* Annotate DA Form 2404		

UNIT	CHECK FOR	ACTION
7. Printing Units		
Plate, blanket, impression cylinders	Dents, breaks, and nicks	*
Bearer pressure		Adjust if necessary
8. Delivery Unit		
Chains	Wear and breaks	*
Opening cams and followers	Wear	*
Delivery grippers	Wear	*
Rear jogger and side standards	Wear and damage	*
9. Other		
Electrical wiring	Broken or frayed wiring	*
Switches	Inadequate operation	*
Drive belts	Wear Adjustment	* Adjust if necessary
Electrical motors	Unusual noise	*
Bearings	Wear Unusual noise	* *
Motor belts	Wear Unusual noise Inadequate operation	* * *
* Annotate DA Form 2404		

NOTES:

**PERFORM PREVENTATIVE
MAINTENANCE ON THE
HEIDELBERG OFFSET PRESS
(MODEL SOR)**

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