



2-LINE WET LINE KIT SCHEMATIC

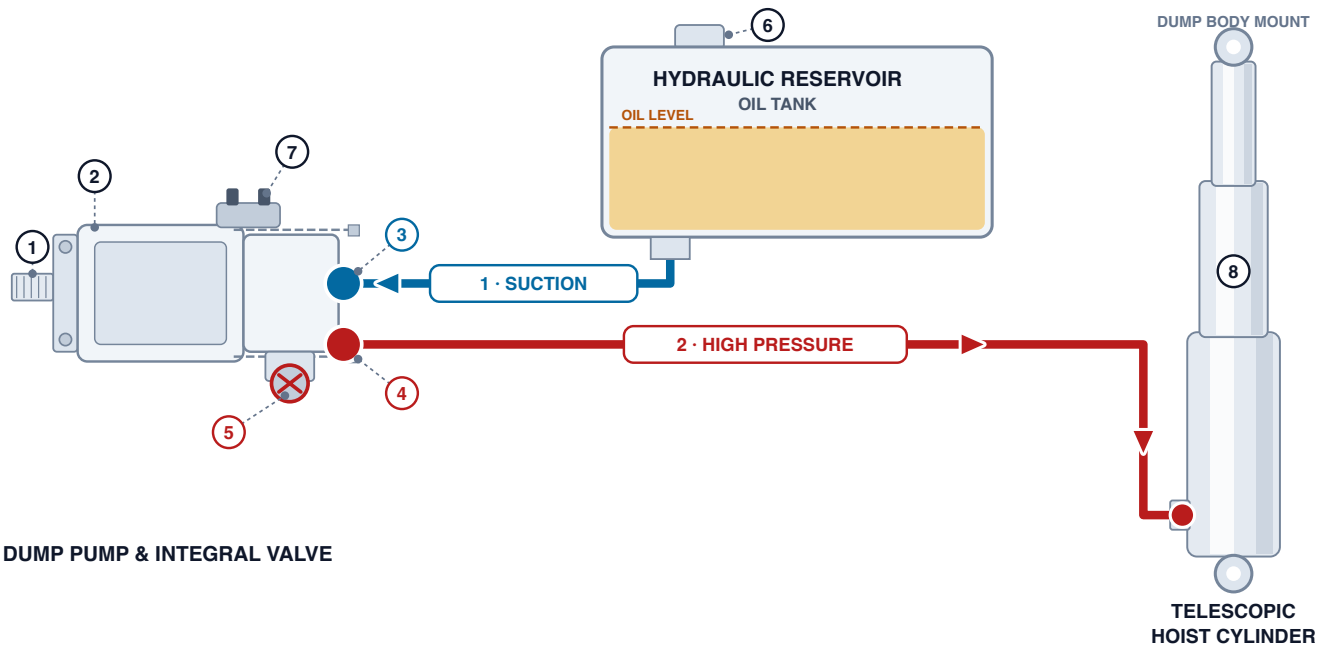
Standard dump application · intermittent duty, return port plugged

PETRA TECHNICAL SPEC
DWG WLK-2L-2026

1 · SUCTION

2 · HIGH PRESSURE

● RETURN PORT PLUGGED (NO 3rd LINE)



DUMP PUMP & INTEGRAL VALVE

COMPONENT KEY

① Splined PTO input drive shaft

② Cast-iron gear body / pump housing

③ Inlet port — suction feed from reservoir

④ Cylinder port — high pressure to hoist

⑤ Return port — PLUGGED with hex plug (2-line)

⑥ Breather cap / fill point

⑦ Pneumatic air-shift spool actuator

⑧ Upright telescopic hoist cylinder

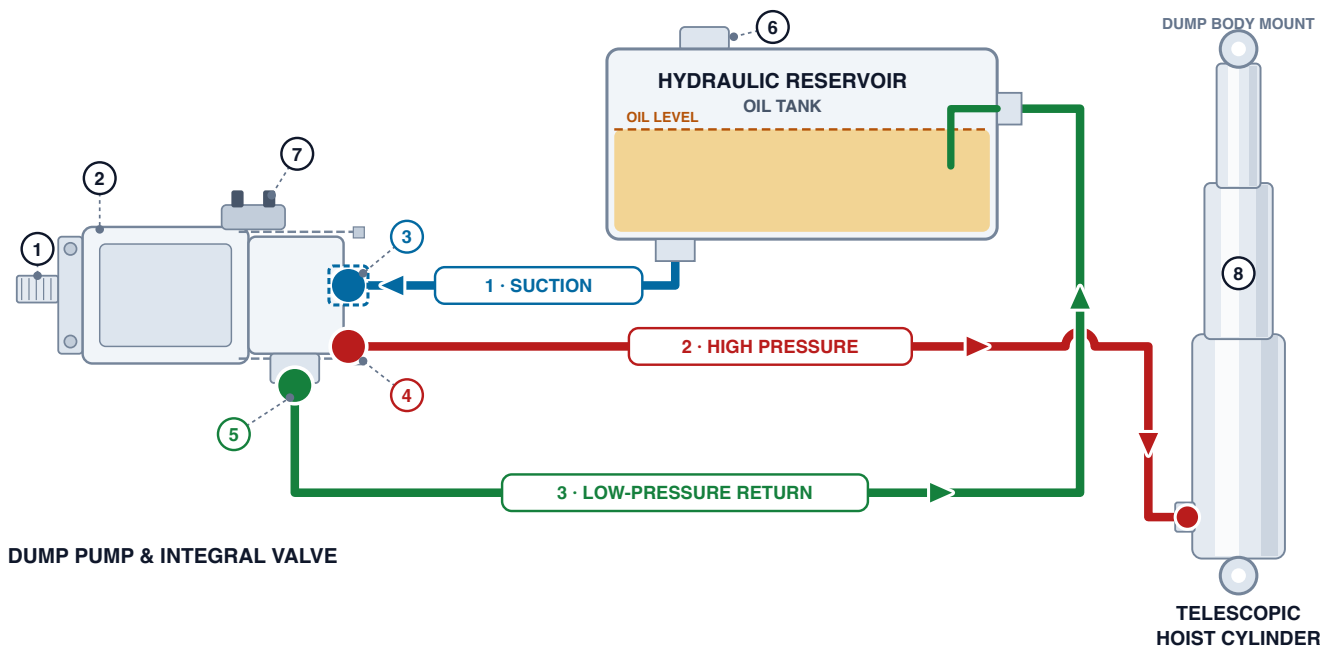


3-LINE WET LINE KIT SCHEMATIC

Heavy-duty dump application · dedicated low-pressure return to reservoir

PETRA TECHNICAL SPEC
DWG WLK-3L-2026

1 · SUCTION 2 · HIGH PRESSURE 3 · LOW-PRESSURE RETURN ● RETURN PORT UN-PLUGGED



DUMP PUMP & INTEGRAL VALVE

COMPONENT KEY

- | | | |
|--|--|--------------------------------------|
| ① Splined PTO input drive shaft | ④ Cylinder port — high pressure to hoist | ⑦ Pneumatic air-shift spool actuator |
| ② Cast-iron gear body / pump housing | ⑤ Return port — UN-PLUGGED, 3-line sleeve fitted | ⑧ Upright telescopic hoist cylinder |
| ③ Inlet port — suction feed from reservoir | ⑥ Breather cap / fill point | |

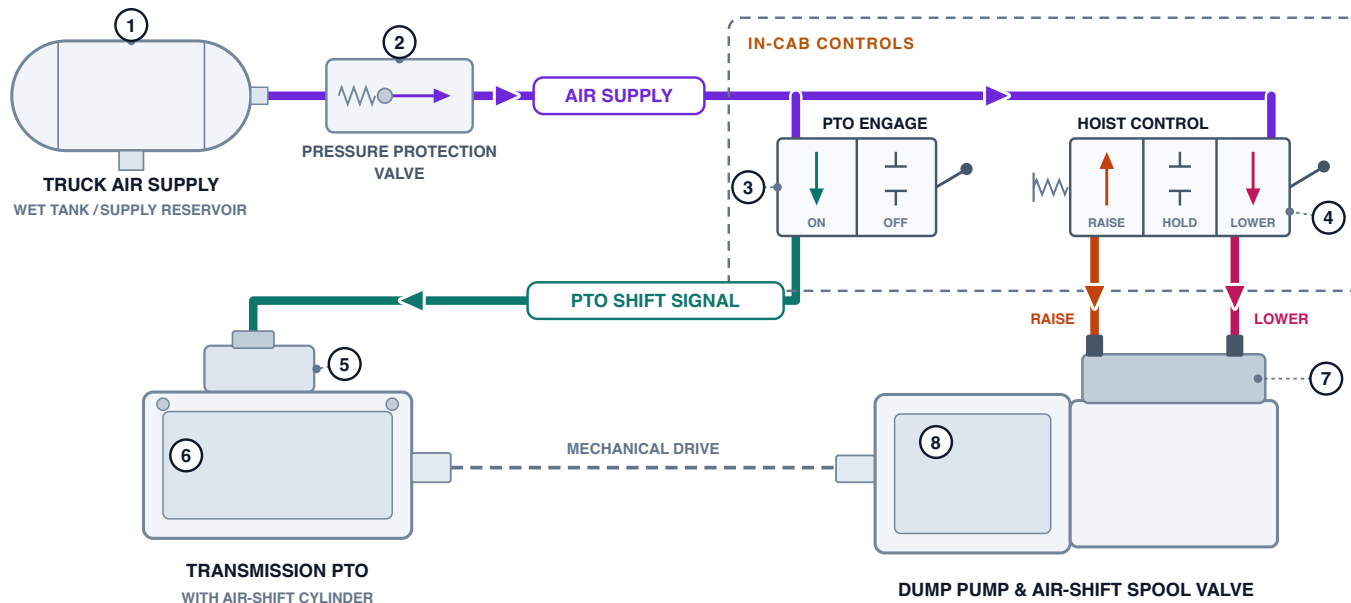


PNEUMATIC CONTROL SCHEMATIC

Air-shift PTO and 3-position hoist control · wet line kit air circuit

PETRA TECHNICAL SPEC
DWG WLK-AIR-2026

AIR SUPPLY PTO SHIFT RAISE SIGNAL LOWER SIGNAL



COMPONENT KEY

- | | | |
|--|--|---|
| ① Truck air supply — wet tank / supply reservoir | ④ Cab valve — hoist control (3-position) | ⑦ Pump air-shift actuator — raise / lower ports |
| ② Pressure protection valve — isolates brake air | ⑤ PTO air-shift cylinder | ⑧ Dump pump & integral spool valve |
| ③ Cab valve — PTO engage (2-position on / off) | ⑥ Transmission-mounted PTO | |



WET LINE KIT COMPARISON

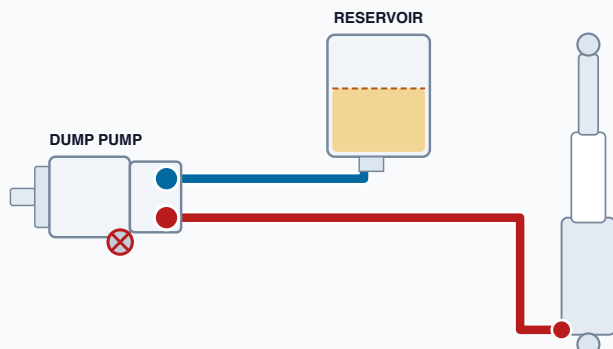
2-Line standard duty vs 3-Line continuous duty · dump truck hydraulic systems

PETRA TECHNICAL MANUAL
DWG WLK-CMP-2026

— SUCTION — HIGH PRESSURE — LOW-PRESSURE RETURN (3-LINE ONLY)

2-LINE · STANDARD DUTY

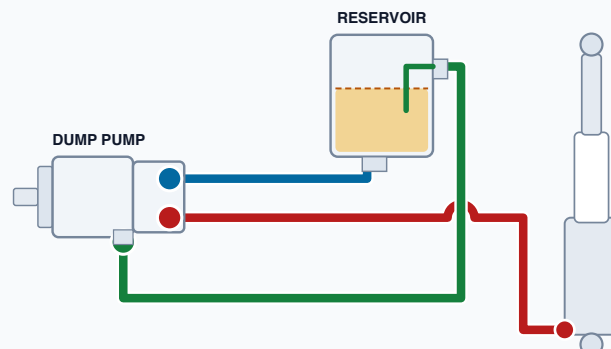
INTERMITTENT USE



RETURN PORT PLUGGED — no third hose
Oil is held in internal bypass; heat builds if the PTO stays engaged.

3-LINE · CONTINUOUS DUTY

PETRA RECOMMENDED



RETURN PORT UN-PLUGGED — 3-line sleeve fitted
Oil recirculates back to the reservoir with the PTO engaged.

FEATURE / SPECIFICATION

2-LINE KIT

3-LINE KIT

Return line connection

Plugged at the pump body

Un-plugged, 3-line sleeve insert

Return flow path

Internal bypass / hold

Direct low-pressure return to reservoir

Extended operation

Limited — pump heat risk

Suited to extended operation