CONTROL SOLUTIONS
FOR MOBILE APPLICATIONS

DEL Products are manufactured in North America with PRIDE.
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DEL 1221 VALVES

Stackable FEATHERING Valves utilizes one common port and exhaust port with one standard bolt length. Various bankable applications such as wet line kits, dump pump controls, municipal snowplow vehicles, dump bodies, refuse vehicles and more. Offset handles allows for a very clean installation that results in labor cost savings.

- 0-120 psi proportional control
- Ability to stack the valves into bankable configurations
- Optimal PSI: between 85 and 120

OPTIONS:
- Back-Lit Knobs for all driving conditions, especially at night
- Neutral Detent
- 3-Position Detent: Raise / Lower / Neutral
- Detent Clip
- Spacer to accept various straight handle configurations
- Magnifying cap and decal clearly shows functions & control instructions

FEATHERING Joystick Valves. A compact assembly allowing single operation of valve function with one lever. Capable of articulating 360°.

Used in various applications including front end loaders, roll-offs and municipal snowplow trucks.

OPTIONS:
- Heavy Duty design
- Non-rotating design for the electric handle grips and lit knobs

PNEUMATIC JOYSTICKS

HYDRAULIC VALVE ACTUATORS

DUMP TRUCK ACTUATORS

Direct-mount Air Shift Cylinders for various hydraulic dump pumps. Allows proportional control for lowering dump bodies and dump trailers, etc., utilizing air controls.

DEL’s Air Shift Cylinders are designed to control the closing and opening of hydraulic valves by installing a pneumatic shift cylinder to the end of the hydraulic spool.

Featuring:
- Balanced areas for True Proportional Control
- Simple installation with no outside moving parts
- Die cast Zinc alloy to deter corrosion
- Non-binding design
- Pre-assembled for quick installation
- Compact design
Valve Applications

Applications include single operating or double acting air cylinder control, engaging and disengaging power takeoffs, tailgate air locks, air operated doors. Doors open and close cylinder latches and many more.

PTO AIR VALVE KIT

PTO AIR VALVE KIT

AIR TO PTO

AIR LINE

REGULAR FITTING

REGULAR FITTING

1201-99-06 AIR VALVE

1204-99-01 ADJUSTABLE PRESSURE PROTECTION VALVE

AIR SUPPLY FROM AIR TANK

MOUNTING BOLTS

FLASHING LIGHT

MOUNTING PLATE

BLACK WIRE (from blue wire)

RED WIRE (from blue wire)

BLUE WIRE

BLUE WIRE

PTO AIR VALVE KIT

AK-1201

DAV-1201

2 POSITION, ON-OFF LEVER

1201-99-05

2 POSITION, ON-OFF LEVER MICRO SWITCH

1201-99-06

BRK-1201

DASH MOUNTED BRACKET

DMPBRK-1201
**PNEUMATIC CONTROL VALVES**

**DAV-1202**

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**BRK-1202**

1202 DASH MOUNTED BRACKET DMPBRK-1202

**BRK-1202 WM**

1202 WILLIAMS BRACKET DMPBRK-1202-WM

In the popular application of Dump Trucks and Trailers, it will control the Raising, Holding and Lowering of hoists.

**DAV-1203**

DUAL VALVES

3 POSITION:
- RAISE
- NEUTRAL-FEATHER
- LOWER

2 POSITION: ON-OFF

PTO disengagement when the dump body is FULLY LOWERED.

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**Valve Applications**

In the popular application of Dump Trucks and Trailers, it will control the Raising, Holding and Lowering of hoists.

**DAV-1204**

ADJ. PRESSURE PROTECTION VALVE 1204-99-01

**BRK-1203**

DASH MOUNT BRACKET DMPBRK-1203

Call us for your pneumatic control applications.
PNEUMATIC CONTROL VALVES

Pneumatic Solutions for **ASPHALT DRIVERS**
who can’t spread with their current valves.

*We have addressed the problem!*

**DAV 1203**

3 POSITION: • RAISE • NEUTRAL-FEATHER • LOWER
2 POSITION: • ON • OFF

The **RED SAFETY LIFT HANDLE** engages & disengages the Power Take off (PTO). The **BLACK LIFT HANDLE** controls the raising, neutral & controlled lowering of pneumatic shift cylinders on various dump pumps. (Hoist). You do not have to reactivate the PTO to finish spreading asphalt.

- Safety PTO Lift Handle
- Flashing Red LED Light (console)
- 1/8” NPT Ports

**FEATHERING**

The PTO is ONLY disengaged when the cylinder control is moved to “Full Lower” allowing easy work in spreading operations.

**FULLY SERVICEABLE**

**Valve Applications**

Are you tired of re-engaging the PTO every time you lower and raise the dump body, adjusting the flow of spreading material to the hopper or paver when spreading asphalt?

Why not engage the transmission clutch and PTO only once with the **DEL DAV 1203-99-02**
Valve Applications

DAV 1208 PLUMBING

Knob may be pulled out at any time to disengage PTO.

Loosen Setscrews (2) to Install

Air Tank Supply In

Plug

Plug

Plug

To Parking Brake

Optional DAV1208 Cartridge

Valve Applications

DAV-1205

2 Position, On/Off Valve with Pin Lock 1205-99-01

DAV-1208

2 Position, Lock Out PTO Disengagement 1208-99-01

PROTECT & SAVE your AIR OPERATED PTO from being TORN APART!

Use the PTO SAVER VALVE designed by DEL HYDRAULICS with a special cartridge that automatically disengages the PTO when the spring parking brakes are released, as well as various air logic positioning functions.

Unscrew knob, collar and 2 set screws to install into dash or console

PUSH THE PIN INWARD, DEPRESS KNOB TO ENGAGE THE PTO

AIR TANK SUPPLY IN

PLUG

PLUG

COLLAR

PLUG

TO PTO

CARTRIDGE DISENGAGEMENT

PARKING BRAKE SWITCH

SPRING PARKING BRAKES

ALL PORTS ARE SIZED 1/8" NPT

Unscrew knob, collar and 2 set screws to install into dash or console

PROVIDES SIMPLE OPERATION and EASE of USE.

The PTO SAVER VALVE designed by DEL HYDRAULICS employs a special cartridge that automatically disengages the PTO when the spring parking brakes are released.

The DAV 1208 is ideal for TAILGATE LATCHES and LIFT AXLES.

ALL PORTS ARE SIZED 1/8" NPT

PROVIDED MANUFACTURED IN NORTH AMERICA

Proudly Manufactured In North America
The DAV1295 pneumatic Control valve assists in raising and lowering of the hoist.

- The RED Safety Knob engages & disengages the PTO
- The BLACK / YELLOW lift handle controls the raising, neutral and controlled lowering of pneumatic shift cylinders on various dump pumps (Hoist)
- Automatic mechanical disengagement of the PTO in the “Full Lower” position
- Bright RED LED flashing warning light notifies the operator that the PTO is fully engaged or disengaged
- PTO Safety Knob prevents accidental engagement of the PTO
- 1/8” NPT inlet, exhaust and work ports

Part numbers:

- **1295-99-01** PTO / Hoist control / Fully Raise Position / Neutral Detent / lower modulating control with PTO Auto-Disengagement
- **1295-99-02** PTO / Hoist Control / Fully Raise Position / Neutral Detent / lower modulating control with PTO Auto-Disengagement / 1201 on off valve
- **1295-99-03** PTO / Hoist Control / Fully Raise Position / Neutral Detent / Lower modulating control with PTO Auto-Disengagement / 1208 open / close tailgate valve with air logic.

The PTO is only disengaged when the control lever is moved to the “Full Lower” allowing the PTO to remain engaged for working into an asphalt spreader and similar operations.
DAV-1213
LIMIT VALVE 1213-99-01
FOR UP / BODY LIGHT APPLICATION

DAV-1214
DUMP ANGLE LIMIT VALVE 1214-99-01
The DAV 1214 limits the stroke of a hydraulic cylinder.

Valve Applications

Applications include various air logic functions for positioning.

See next page for description.

Valve & Bracket Kit

DAV 1214 with bracket

BRK-1214
1214 BRACKET BRK-1214

Call us for your pneumatic control applications.
1. Move the lever to the **RAISE** position - The valve control spool moves outward.
2. Raise the dump body hoist - as the hoist cylinder leans back, the hoist cylinder engages the valve control spool.
3. Once the hoist cylinder engages the valve control spool, the spool moves inward and exhausts air around the spool clearing any dust and / or debris. The pneumatic shift cylinder attached to the hydraulic spool of the dump pump centers to the neutral position and stops the hydraulic cylinder from extending any further (hence - dump angle limit valve).
4. In the **LOWER** position: When the hoist cylinder lowers, the valve control spool will stay in until you move the lever to the RAISE position in order for the valve control spool to move outward to cycle again.

**Eliminates** dump pump pull out cables.

**Eliminates** constant use of the system pressure relief valve.

**Eliminates** banging of cylinder stops at the end of stroke.

**PNEUMATIC CONTROL VALVES**

**TYPICAL INSTALLATION**

Pneumatically Limits the Stroke of the Hydraulic Cylinder

**DAV 1214** with adjustable bracket
PNEUMATIC CONTROL VALVES

DAV1221 VALVES

Stackable Valves using one common inlet and exhaust ports with one standard bolt length. Provides various bankable applications - wet line kits, dump pump controls, municipal snowplow vehicles, dump bodies, refuse vehicles and more.

FEATURES:
- 0-120 PSI proportional control, able to stack valves into bankable configurations
- Offset handles allow for very clean installation that reduces labor cost

OPTIONS:
- Lit Knobs for all driving conditions, even at night.
- Neutral Detent
- 3-Position Detent
- Detent Clip
- Spacer to accept various straight-handle configurations
- Magnifying Cap and Decal clearly shows functions and control instructions

NOTE:
ALL 1220 SERIES PNEUMATIC CONTROL VALVES FEATHER IN BOTH DIRECTIONS

FEATURES:
- 0-120 PSI proportional control, able to stack valves into bankable configurations
- Offset handles allow for very clean installation that reduces labor cost

OPTIONS:
- Lit Knobs for all driving conditions, even at night.
- Neutral Detent
- 3-Position Detent
- Detent Clip
- Spacer to accept various straight-handle configurations
- Magnifying Cap and Decal clearly shows functions and control instructions

NOTE:
ALL 1220 SERIES PNEUMATIC CONTROL VALVES FEATHER IN BOTH DIRECTIONS

DAV-1221

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DAV1221 VALVES

DAV-1221

1221 VALVE
HALF BENT HANDLE
1221-99-02

DAV-1221

1221 VALVE
QUARTER BENT HANDLE
1221-99-07

DAV-1221

1221 VALVE
FULL BENT HANDLE
1221-99-03

DAV-1221UH

1221 UPPER HANDLE ASSEMBLY
DAV1221UH

DAV-1221 BANKED

2 BANK VALVE 1221-2B-01
3 BANK VALVE 1221-3B-01
4 BANK VALVE 1221-4B-01
5 BANK VALVE 1221-5B-01
6 BANK VALVE 1221-6B-01
7 BANK VALVE 1221-7B-01

DAV-1221 SLIM BANKED
(WM521A)

2 BANK VALVE, WM521A 1221-2B-41
3 BANK VALVE, WM521A 1221-3B-41

DAV-1221 SLIM BANKED

DAV-1221 3 BANK

DAV-1221 3 BANK SLIM

1221 SPACER MANIFOLD BLOCK - BANKABLE
DAV1221SPCR

Call us for your pneumatic control applications.
PNEUMATIC CONTROL VALVES

DAV1221 VALVES

SPRING DETENT
- DETENT CLIP
- DETENT CLIPS

1221MNRE
- MINOR REPAIR KIT
- DAV1221MNRE

1221MJRE
- MAJOR REPAIR KIT
- DAV1221MJRE

DAV1224 VALVES

DAV-1224
- VALVE, LOCK IN NEUTRAL 1224-99-03
- VALVE, LOCK IN NEUTRAL, DOUBLE DETENT 1224-99-04
- VALVE, LOCK IN NEUTRAL, TRIPLE DETENT 1224-99-05
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DAV-1224UH
- UPPER HANDLE ASSEMBLY DAV1224-UH-03
- UPPER HANDLE ASSEMBLY DAV1224-UH-04
- UPPER HANDLE ASSEMBLY DAV1224-UH-05

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- STEEL TRACK 1264-84-21
- STEEL TRACK 1264-84-22
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Air Controls with **BACK-LIT** Knobs

**For All Lighting Conditions**

- 4 way metering bankable air valves, ergonomically designed with spring return to neutral position control remotely the metering action of pneumatic shift cylinders on various hydraulic valve spools of central hydraulic systems.
- They are available with single detent, double detent, neutral detent, as well as combined detents as options.
- Their compact size allows the valve to be multi-stacked with common inlet and exhaust manifold ports with bolts of one standard length.
- The quality illumination (minimal current draw 1.18mA at 12 volt D.C.) of the LED lighted knobs and magnifying clear caps with decals displays the functions and control instructions under all lighting conditions.

**Back-lit Knob Decal Choices Available**

- **Right PLOW**
- **Left PLOW**
- **Out**
- **Power OUT**
- **In**
- **Power IN**
- **Down**
- **Hoist Down**
- **Front Wing Down**
- **Rear Wing Down**
- **Wing Slide Down**
- **Wing Brace Down**
- **Brake Off**
- **Side Dump Down**
- **Side Tilt Up**
- **Left FT Wing Down**
- **Right FT Wing Down**
- **Load Cover Open**
- **Cover Close**
- **Tarp Open**
- **Tarp Close**
- **Fork Up**
- **Arms Up**
- **Left Lock Down**
- **Pin Lock Open**
- **Jib Up**
- **Conveyor Front**
- **Conveyor Back**
- **Push Arm Up**
- **Left RR Wing Down**
- **Right RR Wing Up**
- **Unlock**
- **Front Hitch Lock**
- **Feed Gate Out**
- **Tail IN**
- **Scraper Right**
- **Scraper Left**
- **Scraper Curl Right**
- **Scraper Curl Left**
- **Winch Out**
- **Winch In**
- **Lower Down**
- **Raise Up**
- **Back Right**
- **Front Left**
- **Mag Cap**

Easy installation. Slip into cap (sold separately), install cap onto arm.
PNEUMATIC CONTROL VALVES

AIR CONTROLS with BACK-LIT KNOBS

DAV-1261

Valve, Lit Knob
Half Bent Handle
1261-99-02

DAV-1261

Valve, Lit Knob
1261-99-01

DAV-1261

Valve, Lit Knob
Full Bent Handle
1261-99-03

DAV-1261 Banked

2 Bank Valve, Lit Knob
1261-2B-01

3 Bank Valve, Lit Knob
1261-3B-01

4 Bank Valve, Lit Knob
1261-4B-01

5 Bank Valve, Lit Knob
1261-5B-01

DAV-1264

Valve, Neutral Lock, Lit Knob
1264-99-01

Valve, Neutral Lock, Double Detent, Lit Knob
1264-99-02

Valve, Neutral Lock, Triple Detent, Lit Knob
1264-99-03

Call us for your pneumatic control applications.
**Valve Applications**

**DAV-1271**

**Valve, 3-Position Momentary Switch**
- 1271-99-01

**Valve, 3-Position On-Off Switch**
- 1271-99-21

**Valve, On-Off Switch**
- 1271-99-31

**DAV-1274**

**Valve, Neutral Lock, On-Off Switch**
- 1274-99-31

**Valve, Neutral Lock, Detent, On-Off Switch**
- 1274-99-32

**Valve, Neutral Lock, Double Detent, On-Off Switch**
- 1274-99-33

---

**Plow Raise/Lower & Hoist Raise/Lower**

**DAV 1221**

Switch Off:
- Plow Raise/Plow Lower Functions

Switch On:
- Hoist Raise/Hoist Lower

To ASC’s

---

**Plow Only Functions**

**DAV 1221**

Switch Off:
- Plow Angle Left/Plow Angle Right

Switch On:
- Plow Raise/Lower Functions

To ASC’s
**PNEUMATIC CONTROL VALVES**

**PNEUMATIC FEATHERING JOYSTICKS**

NOTE:
All Joystick Valves available with various mounting plates.

MT - MUNSON TISON PLATE
WM - WILLIAMS PLATE
PED - PEDESTAL (LARGE) PLATE
PRL - PARALLEL PLATE
DEL - OFFSET PLATE

NOTE:
*Simultaneous 360° operation.*

Features a compact assembly of two DAV1221 pneumatic valves allowing single operation of valve function with one lever capable of articulating 360 degrees.

APPLICATIONS: front end loaders, roll offs, municipal snowplow trucks.

Available with various mounting plates for aftermarket and OEM. See illustration at left.

Lit knobs, electric handle grips and detent option for a float function also available.

**HEAVY DUTY DESIGN**

**NON-RATING DESIGN** for the ELECTRIC HANDLES & LIT KNOBS to PREVENT DAMAGE to WIRES

**1226 MT**

**1227 MT**

**1284 MT**

**1285 PRL**

**1286 DEL**

**1287 WM**

**1286**

Ergonomically designed joystick for driver comfort with on/off momentary switches.

**RED TRIGGER** to guard against accidental button engagement or use for another function

Allows SINGLE or SIMULTANEOUS Operation with ONE LEVER!

**F14G11B**

**EXHAUST**

**FUNCTION A**

**FUNCTION B**

**AIR TANK**

**DAV 1284**
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<td>Valve Williams Plate, PIC Fittings</td>
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<tr>
<td>1226-99-34</td>
<td>Valve Parallel Plate, PIC Fittings</td>
</tr>
<tr>
<td>1226-99-43</td>
<td>Valve x2 Pedestal Plate</td>
</tr>
<tr>
<td>1227-99-11</td>
<td>Valve Round Plate, Detente</td>
</tr>
<tr>
<td>1227-99-13</td>
<td>Valve Pedestal Plate, Detente</td>
</tr>
<tr>
<td>1285-99-03</td>
<td>Valve Pedestal Plate, Lit Knob, Detente</td>
</tr>
<tr>
<td>1286-99-06</td>
<td>Valve Round Plate, 3-pos., Momentary Grip, HD Springs</td>
</tr>
<tr>
<td>1286-99-09</td>
<td>Valve Parallel Plate, 3-pos., Momentary Grip, HD Springs</td>
</tr>
<tr>
<td>1286-99-10</td>
<td>Valve DEL Offset Plate, 3-pos., Momentary Grip, HD Springs</td>
</tr>
</tbody>
</table>
MINOR and MAJOR SERVICE KITS FOR PNEUMATIC JOYSTICKS

**DAV1226MNRE**
MINOR REPAIR KIT

**DAV1226MJRE**
MAJOR REPAIR KIT

**DAV1226HDMNRE**
HD MINOR REPAIR KIT

**DAV1226HDMJRE**
HD MAJOR REPAIR KIT
PTO HOIST AIR VALVE

DAV-1229

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTO / HOIST VALVE, RAISED BUTTON</td>
<td>1229-99-21</td>
</tr>
<tr>
<td>PTO / HOIST VALVE, PTO DISENGAGEMENT</td>
<td>1229-99-02</td>
</tr>
<tr>
<td>PTO / HOIST VALVE, DOUBLE DETENT</td>
<td>1229-99-03</td>
</tr>
<tr>
<td>PTO / HOIST VALVE, SINGLE DETENT</td>
<td>1229-99-04</td>
</tr>
<tr>
<td>PTO / HOIST VALVE, PTO DISENGAGEMENT, DETENT</td>
<td>1229-99-05</td>
</tr>
</tbody>
</table>

DAV1229 AIR CONTROL VALVE

- **DAV1229 AIR CONTROL VALVE**
  - Push Red Button and Pull Yellow Sleeve to Engage Float
  - Pull Yellow Sleeve to Disengage PTO
  - Move Lever to Lower Hoist

- **SVS3023 DC FLOAT CONTROL AIR SHIFT CYLINDER**
  - Double Acting
  - Hydraulic Control Valve with Float Spool

- **SUPPLY**
- **AUXILIARY PORT**
- **WORK PORT A**
- **WORK PORT B**
- **DPS3016 AIR SHIFT CYLINDER**
- **POWER TAKE-OFF**

DAV1229 AIR CONTROL VALVE

- **DAV1229 AIR CONTROL VALVE**
  - Push Red Button and Pull Yellow Sleeve to Engage Float
  - Pull Yellow Sleeve to Disengage PTO
  - Move Lever to Lower Hoist
  - Move Lever to Raise Hoist
Supplied air is fed through the system’s pressure protection valve and a simple “T” from the air seat to the air valve.

Installing the valve onto the seat bracket.

Operating the P.T.O. and Dump.

QUICK & SIMPLE INSTALLATION
TYPICAL DAV 1229 HYDRAULIC PNEUMATIC APPLICATIONS

**DAV 1229 HOIST/PTO AIR CONTROL VALVE**

- Push RED BUTTON and PULL YELLOW SLEEVE to Engage Float
- MOVE LEVER to RAISE or LOWER Plow Blade
- Pull YELLOW SLEEVE to disengage Float Blade
- Double Acting Hydraulic Control Valve

**SVS 3023 DC Float Control Air Shift Cylinder**

**DAV 1229 HOIST/PTO AIR CONTROL VALVE**

- Push RED BUTTON and PULL YELLOW SLEEVE to Divert Oil to 2nd Function
- MOVE LEVER to RAISE or LOWER Selected Device A or B

**HYDRAULIC SELECTOR VALVE**

**DEL SVS 3017 AIR SHIFTER**

**DOUBLE ACTING HYDRAULIC CONTROL VALVE**

Consult our factory for your special application.
HELPS GUARD AGAINST ACCIDENTAL OVER PRESSURE!

- The DAV 1229 Pneumatic Control valve engages the PTO and controls the raising and lowering the end dump trailer.

- The DAV 1201 Pneumatic Valves provide control of separate relief valve settings and operates a pneumatic tailgate cylinder.

EASY INSTALLATION

DEL Air Logic provides control of dual relief valve settings.

WALKING FLOOR END DUMP TRAILER HI LO KIT
1229-HI-LO
1224-HI-LO (DAV 1224 OPTION)

• Preassembled
• Compact Design
• Black Slim Style Console

DAV1229
See Page 20

DAV1201
See Page 3
WHEN THE TAIL GATE IS IN CLOSED POSITION, THE RELIEF VALVE CAN BE OPERATED IN HI PRESSURE MODE. WHEN THE TAIL GATE IS IN OPEN POSITION, YOU CANNOT OPERATE THE RELIEF VALVE IN HI PRESSURE MODE. THE RELIEF VALVE WILL BE IN LOW PRESSURE MODE.
PNEUMATIC CONTROL KIT for HYDRAULIC WINCH APPLICATIONS

Pneumatic Winch Control Kit includes:
- Air valves
- Console and Tubing

KIT comes Pre-installed with Flashing Red Warning Lights.

1221-99-02 – Move the pneumatic control valve lever forward to apply modulating brake force precisely to the winch drum. (The valve automatically springs back to the neutral position when you release the handle). OPTION: Also available with detent (D24-DETENTCLIPS) to leave the brake in the Full-On position.

1229-99-21 – Select winch high speed by lifting and releasing the yellow locking sleeve while holding the red pushbutton down. Select winch low speed by lifting the yellow locking sleeve alone, allowing the red pushbutton to reset to the raised (low speed) position. Control the cable speed proportionally by moving the lever forward or back. This valve also springs back to the neutral position when the handle is released.

1208-99-01 – Push the side safety pin inwards and depress the black knob to engage the PTO. (The air valve is supplied with a pilot cartridge assembly to automatically disengage the PTO when the spring parking brakes are released).

1201-99-06 – Move the valve toggle lever to engage or disengage the dog clutch - in or out.

Red Flashing Lights – • PTO engaged • High Speed selected

Call us for your pneumatic control applications.
DHV 1300 Hydraulic Control Valves
For Single Acting Hydraulic Cylinders

RELIABILITY, RESPONSE and REMOTE FEATHERING CONTROL

The rugged DEL DHV 1300 valve is designed to meet the fluid power demands of a wide range of applications. Some characteristics include:

- Precision die cast alloy and steel construction
- Maximum load control
- Capacities up to 50 GPM
- Available up to 3500 PSI
- Weight: 8 lbs.
- Subplate mounting can be remote or on the oil reservoir

All DHV 1300 valves are rated at 50 GPM from inlet to work port and from inlet to tank. The ratings above represent work port to tank, which affects the lowering speed.

<table>
<thead>
<tr>
<th>Model</th>
<th>Valve Specifications</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>50 GPM, air operated, piloted, fast lower</td>
<td>1301-99-01</td>
</tr>
<tr>
<td>F2</td>
<td>25 GPM, cable operated, feathering needle, slow lower</td>
<td>1302-99-01</td>
</tr>
<tr>
<td>F3</td>
<td>25 GPM, cable operated, medium lower</td>
<td>1303-99-01</td>
</tr>
<tr>
<td>F4</td>
<td>50 GPM, cable operated, piloted, fast lower</td>
<td>1304-99-01</td>
</tr>
<tr>
<td>F5</td>
<td>25 GPM, air operated, feathering needle, slow lower</td>
<td>1305-99-01</td>
</tr>
</tbody>
</table>

Reservoir Tanks c/w Breather Filler
Various sizes available. Please consult factory.
DEL Hydraulics manufactures direct mount air shift cylinders for various hydraulic dump pumps. They allow proportional control for lowering dump bodies and end dump trailers, etc. that utilize air controls. The benefits include less installation time and low overall maintenance costs.

Superior Features Include:

- Die-cast Zinc Alloy material
- Non-Binding
- Compact Size
- Proportional Control
- Preassembled for Quick & Simple Installation
- No Exposed Parts.

PNEUMATIC CONTROL VALVES

DUMP PUMP ACTUATORS

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>PART No.</th>
</tr>
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<tbody>
<tr>
<td>PARKER C101/102</td>
<td>3016-99-01</td>
</tr>
<tr>
<td>PARKER G101/102-NON DETENT</td>
<td>3010-99-02</td>
</tr>
<tr>
<td>MUNCIE E/EH, C101, 102</td>
<td>3016-99-01</td>
</tr>
<tr>
<td>PERMCO DM640</td>
<td>3016-99-01</td>
</tr>
<tr>
<td>PERMCO DMD25</td>
<td>3035-99-01</td>
</tr>
<tr>
<td>PERMCO DMD400 (Direct) DMR400 (Remote)</td>
<td>3051-99-01</td>
</tr>
</tbody>
</table>

DEL Hydraulics manufactures direct mount air shift cylinders for various hydraulic dump pumps. They allow proportional control for lowering dump bodies and end dump trailers, etc. that utilize air controls. The benefits include less installation time and low overall maintenance costs.

Superior Features Include:

- Die-cast Zinc Alloy material
- Non-Binding
- Compact Size
- Proportional Control
- Preassembled for Quick & Simple Installation
- No Exposed Parts.

PNEUMATIC CONTROL SHIFTERS for HYDRAULIC PUMPS

<table>
<thead>
<tr>
<th>PART No.</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3010-99-01</td>
<td>Commercial G101/102 Detent Buyers BPC, Metaris</td>
</tr>
<tr>
<td>3010-99-02</td>
<td>Commercial G101/102 Non-detent</td>
</tr>
<tr>
<td>3051-99-01</td>
<td>Permco DM400, DMR400</td>
</tr>
</tbody>
</table>

Anti-Bind Technology allows for years of service!
**HYDRAULIC VALVE ACTUATORS**

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARKER A20</td>
<td>ASC-A20</td>
</tr>
<tr>
<td>PARKER A20-K4 FLOAT</td>
<td>3009-99-01</td>
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<tr>
<td>PARKER A35</td>
<td>3019-99-03</td>
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<td>PARKER 25P</td>
<td>3017-99-03</td>
</tr>
<tr>
<td>PARKER V20</td>
<td>ASC-V20</td>
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<tr>
<td>PARKER V20-K4 FLOAT</td>
<td>3023-99-03</td>
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<tr>
<td>PARKER V40</td>
<td>3027-99-03</td>
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<tr>
<td>PARKER S75</td>
<td>3033-99-01</td>
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<tr>
<td>PARKER DS75</td>
<td>3029-99-01</td>
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<tr>
<td>PARKER S-100</td>
<td>3034-99-01</td>
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<tr>
<td>PARKER/KONTAK K-18</td>
<td>3050-99-03</td>
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<tr>
<td>REXROTH MP-18</td>
<td>3018-99-03</td>
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<tr>
<td>REXROTH MP-4</td>
<td>3059-99-03</td>
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<tr>
<td>CROSS S-100</td>
<td>3081-00-01</td>
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<td>HEIL 031-6131-HPT</td>
<td>3043-99-01</td>
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<tr>
<td>PRINCE 20 SERIES</td>
<td>3013-99-06</td>
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<tr>
<td>PRINCE 5100 MONOBLOCK</td>
<td>3024-99-03</td>
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<tr>
<td>PRINCE SS2A10</td>
<td>3054-99-03</td>
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<tr>
<td>PRINCE SV</td>
<td>3055-99-03</td>
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<tr>
<td>PRINCE DS41AE</td>
<td>3056-99-03</td>
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<tr>
<td>PRINCE DS41AE</td>
<td>3057-99-03</td>
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<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>PART NO.</th>
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<tbody>
<tr>
<td>FLODRAULICS HYDROCONTROL-D16</td>
<td>3039-99-03</td>
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<tr>
<td>HUSCO 5000 SERIES</td>
<td>3038-99-03</td>
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<tr>
<td>HUSCO 6000 SERIES - 375</td>
<td>3037-99-03</td>
</tr>
<tr>
<td>WALVOIL DLS8</td>
<td>3060-99-03</td>
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<td>SALAMI VD6A</td>
<td>3061-99-03</td>
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<tr>
<td>SALAMI VDM6</td>
<td>3063-99-03</td>
</tr>
<tr>
<td>SALAMI VD8A</td>
<td>3062-99-03</td>
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<tr>
<td>SALAMI VDM8</td>
<td>3064-99-03</td>
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<tr>
<td>SALAMI VD10A</td>
<td>3071-99-03</td>
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<tr>
<td>SALAMI VD12A</td>
<td>3072-99-03</td>
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<tr>
<td>BLB 150 SERIES</td>
<td>3075-99-03</td>
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<tr>
<td>SAUER DANFOSS PVG32-EL-SL</td>
<td>3082-99-04</td>
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<tr>
<td>SAUER DANFOSS PVG32-MAN</td>
<td>3083-99-06</td>
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<tr>
<td>WILLIAMS 08 SERIES</td>
<td>3025-99-03</td>
</tr>
<tr>
<td>BUCHER HDS-15</td>
<td>3087-99-03</td>
</tr>
</tbody>
</table>

The actuators are designed to control the closing and opening of hydraulic valves by installing a pneumatic shift cylinder to the end of the hydraulic spool. They provide balanced areas for true proportional control. Simple installation with no exterior moving parts.
E-Z FIT PNEUMATIC SHIFT CYLINDERS

HYDRAULIC VALVE APPLICATIONS

**PRE-ASSEMBLED!**  **ULTRA COMPACT!**  **SIMPLER INSTALLATION!**

These Cylinders Fit Various Valves, such as PARKER, GRESEN, COMMERCIAL, REXROTH, CROSS, VALVOIL, PRINCE, SALAMI and more.

_Tighten the assembly with a hex wrench_ **All moving parts are TOTALLY ENCLOSED!**

Only DEL Pneumatic Shift Cylinders have these Important Safety Features!

Unique Design allows balanced areas A1 and A2 for consistent proportional control in both Directions. Self-alignment feature for aligned and misaligned hydraulic spools eliminates binding & jamming.

Don’t get caught in a bind!

Only DEL E-Z Fit Pneumatic Shift Cylinders offer these important safety features.

Our DEL Neutral Lock Joystick operates 1 or 2 valve functions separately or simultaneously with one lever, capable of rotating 360°.
# Control Consoles

## 14 Gauge Custom Control Console KIts

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Console Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>CONKIT-1202</td>
<td>A</td>
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<tr>
<td>CONKIT-1203</td>
<td>A</td>
</tr>
<tr>
<td>CONKIT-1221</td>
<td>-</td>
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<tr>
<td></td>
<td>Can be used for: DAV1221, 1224, 1229, 1261 &amp; 1264</td>
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<tr>
<td>CONKIT1221X2</td>
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<tr>
<td>CONKIT1221X3</td>
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<tr>
<td>CONKIT1221X4</td>
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<td>CONKIT1221X5</td>
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<tr>
<td>CONKIT1226-01</td>
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<tr>
<td></td>
<td>MT/Round plate joystick</td>
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<td>CONKIT1226-04</td>
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<td>Parallel plate joystick</td>
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<tr>
<td>CONKIT1295-03</td>
<td>A</td>
</tr>
</tbody>
</table>

More custom control kits available to fit your specific applications

Call us today (716) 853-7996

Proudly Manufactured In North America
TROMBONE CONSOLES
Height Adjustable Custom Consoles for Pneumatic Controls

Slide the INNER COLUMN UP or DOWN to obtain desired height and tighten. Cover opening.

- Telescopic Vertical Height Adjustment
- Heavy Duty Powder Coat Finish - 14 GA Steel
- Removable Top & Sides for Simple Installation and Removal
- Outside mounting holes

Part No.
TR-1229-10-16
Swivel Pedestals (Ergo HD) - Innovation - Quality!
Once the base is installed to the floor, the middle and top sections can be
rotated to either the driver or the passenger side by unlocking the “T”
handles then tightening again. Available in 2 standard heights, 12” and 16”
and an optional 8” height.

Swivel Pedestal
Available with
2 STACKABLE VALVES
3 STACKABLE VALVES
4 STACKABLE VALVES
5 STACKABLE VALVES
6 STACKABLE VALVES
7 STACKABLE VALVES
9 STACKABLE VALVES
11 STACKABLE VALVES

Swivels to either the
driver or passenger side
of vehicles and can be
rigidly secured in its
optimal position
by tightening the
swivel T-bolts.

- Removable Top & Middle pieces for Easy Access
- Configurable for up to 10+ valves
- Ease of installation saves on overall costs
- Accepts round tubing through the base,
middle and the top
- User Friendly
- Powder Coated

TOP SECTION shown with
DEL Pneumatic Valves

WIDER MIDDLE SECTION TUBE
with T-bolt Swivel.
Easily route
tubing & wires

HEAVY-DUTY BASE
12” or 16” high tube
with T-bolt swivel

TOP & MIDDLE SECTIONS
SWIVEL INDEPENDENTLY!
**ACCESSORIES**

**SWIVEL PEDESTAL TOPS**

2 TOP
- TOP SECTION
- 2 STACKABLE VALVES
- DSNP 2T

3 TOP
- TOP SECTION
- 3 STACKABLE VALVES
- DSNP 3T

4 TOP
- TOP SECTION
- 4 STACKABLE VALVES
- DSNP 4T

5 TOP
- TOP SECTION
- 5 STACKABLE VALVES
- DSNP 5T

6 TOP
- TOP SECTION
- 6 STACKABLE VALVES
- DSNP 6T

7 TOP
- TOP SECTION
- 7 STACKABLE VALVES
- DSNP 7T

9 TOP
- TOP SECTION
- 9 STACKABLE VALVES
- DSNP 9T

11 TOP
- TOP SECTION
- 11 STACKABLE VALVES
- DSNP 11T

13 TOP
- TOP SECTION
- 13 STACKABLE VALVES
- DSNP 13T

**TOP SECTION/TOP VIEW**

*Fully Customizable:*
We can manufacture different lengths, heights and widths for many applications.

**BOTTOM SECTION**
- Adjustable height

8" BOTTOM SECTION

12" BOTTOM SECTION

16" BOTTOM SECTION

16" BOTTOM SECTION
- with side opening

MIDDLE SECTION

**BOTTOM SECTION**
- Adjustable HT
- DSNPBG-5-8ADJ

- 8" HT
- DSNPBG8

- 12" HT
- DSNPBG12

- 16" HT
- DSNPBG16

- 16" HT
- DSNPBG16H

MIDDLE SECTION
- DSNPM

Call us for your pneumatic control applications.
FEATHERING CONTROLS for DRIVER & WINGMAN (Passenger Side)

Introducing the
DEL OCTOPUS

- Multi Positioned Sturdy Arm Rest with Gusseted Base, Inner and Outer Pneumatic Tubing and Wiring Access.
- Sturdy Middle Tube with Variable Positioned Locking feature.
- Padded Arm Rest

Driver Side Controls

Passenger Side Controls

Add More Control to Municipal Snow Plows

Custom Configurations Available

Photo courtesy of New England Truck Eq.
SUPER-DUTY ACK SYSTEM

Ideal for Snowplow Trucks, Refuse Trucks (roll-offs) and Dump Body equipped vehicles without air brakes.

Features:
- Heavy-duty epoxy coated, corrosion resistant, thermally protected motor. Dynamically balanced for low vibration with coated steel mounting brackets and vibration isolators, wetted parts treatment for corrosion resistance, PTFE piston ring for optimum life. Strong, lightweight and durable die-cast aluminum components, permanently lubricated bearings and a stainless inlet valve with filter/exhaust muffler for quiet operation.

Ratings:
- 12V DC, 1.2CFM, 19.4A current. Max Duty Cycle at 100 PSI - 8.5 min. on, 10 min. off.

- Oil-less operated Air Compressor/Motor

KIT INCLUDES:
- Relay Switch
- Pressure Switch
- Unique Reservoir Tank

- 14 Ga. Mounting Enclosure
  Painted with Sandex Powder Coat finish.
  Dimensions: Height: 8.75", Width: 8.00", Length: 11.00"

Ford 550 Super Duty (shown) and similar vehicles.

Feathering Air Controls!
DEL SUPER-DUTY AIR COMPRESSOR KIT

- Oil-less operated Air Compressor/Motor
- Pressure Switch
- Unique Reservoir Tank with Petcock Drain
- Moisture Separator

MOISTURE SEPARATOR: Efficient water removal. Our unique deflector plate creates a swirling air stream ensuring maximum water and dirt separation.

DEL SUPER-DUTY ACK SYSTEM

Feathering Controls with LED Back-Lit Knobs

- 4 way metering bankable air valves, ergonomically designed with spring return to neutral position remotely control the metering action of pneumatic shift cylinders on various hydraulic valve spools of central hydraulic systems.
- Available with single detent, double detent, neutral detent, as well as combined detents as options.
- Their compact size allows the valve to be multi-stacked with common inlet and exhaust manifold ports with bolts of one standard length.
- The quality illumination (minimal current draw 1.18 mA at 12 volt D.C.) of the LED lighted knobs and magnifying clear caps with decals displays the functions and control instructions under all lighting conditions.
SUPER-DUTY ACK SYSTEM

ACK ELECTRIC SCHEMATIC

Pneumatic Feathering Shift Cylinder Applications

<table>
<thead>
<tr>
<th>MFG.</th>
<th>APPLICATION</th>
<th>PART No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARKER</td>
<td>A20</td>
<td>ASC-A20</td>
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<tr>
<td></td>
<td>V20</td>
<td>ASC-V20</td>
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<tr>
<td>REXROTH</td>
<td>MP-4</td>
<td>3059-99-01</td>
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<tr>
<td>PRINCE</td>
<td>20 SERIES</td>
<td>3013-99-06</td>
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<tr>
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<td>5100 MONOBLOCK</td>
<td>3024-99-03</td>
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<tr>
<td>HUSCO</td>
<td>5000 SERIES</td>
<td>3038-99-03</td>
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<td>6000 SERIES - 3.75</td>
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## SUPER-DUTY ACK SYSTEM

**ACK-HP-A20**

<table>
<thead>
<tr>
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<th>QTY.</th>
<th>PART</th>
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<tbody>
<tr>
<td>ACK</td>
<td>1</td>
<td>AIR COMPRESSOR KIT</td>
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<tr>
<td>1264-99-01</td>
<td>1</td>
<td>NEUTRAL LOCK VALVE</td>
</tr>
<tr>
<td>1261-2B-32</td>
<td>1</td>
<td>2-BANK MINI VALVE</td>
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<tr>
<td>DAK532FK</td>
<td>3</td>
<td>COLOR CODED TUBING and FITTINGS KIT - 5/32&quot;</td>
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<tr>
<td>DAK250FK</td>
<td>1</td>
<td>TUBING &amp; FITTINGS - .250</td>
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<tr>
<td>RAM MOUNTS</td>
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<td>RAM MOUNTS</td>
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<tr>
<td>SEATBASEPLATE</td>
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**ACK-H-A20**

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<td>SHIFT CYLINDER - A20</td>
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<td>ASC-V20</td>
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Call today to customize your specific application.
Vibrates Sticky Loads and Moves Material Out Quickly and Cleanly

Self-Contained Unit Built on Steel Frame, Ready for Quick Mounting Underneath Dump Box

No Need for External Power Source - Runs Off Trucks 12 Volt Battery!

Well Designed, Heavy Duty Construction

Direct Drive

Reduces Drive Line and Box Damage

Loosens Sticky, Wet and Frozen Materials

Easy - Fast - Economical - Clean - Safe

OPTION: DV12KVT

VIBRATOR TIMER

The DEL HYDRAULICS VIBRATOR TIMER protects the Vibrator motor from overheating by limiting operation to five second intervals.

NOTE: This device must be used in conjunction with a 12 volt solenoid

DEL SHAKER KIT

DD116

DIMENSIONS:
Length: 20 ¾"
Height: 7 ¼"
Width: 7 ¾"
Weight: 82 lbs.

DEL SHAKER KIT

DD107

Shaker
Recommended for Tandem Axle and Tri-Axle Vehicles

KIT INCLUDES:
• Momentary Toggle Switch
• Electric Solenoid
• Wire Terminal Connectors
• Heavy Duty 4 ga Wire
• Fusible Link
• Warning Labels

NOTE: This device must be used in conjunction with a 12 volt solenoid
# Part No. | Description
--- | ---
1 | 1300-30-32 VALVE PLATE
2 | 13000-57-27 NIPPLE 1” JIC
3 | 1301-99-10 HYDRAULIC VALVE F 1. C/W 1” JIC PORTS
4 | 200-121-4470 O RING
5 | 200-122-4470 O RING
6 | 8022-20-28-560 SCREW SOCKET HEAD 5/16-22 x 1 3/4

**1301-99-20**

**HYDRAULIC VALVE F1,**

**C/W 1” JIC**

- **OIL FROM PUMP**
- **INLET - STRAIGHT 1 JIC**
- **MOUNTING HOLES**
- **AIR PRESSURE SUPPLY**
- **OIL TO CYLINDER**
- **OUTLET 1” JIC**
- **RELIEF VALVE ADJUSTMENT**
- **NIPPLE 1” JIC WELD TO PLATE**
- **OIL OUT TO TANK**
### DO-100 ELECTRICAL SCHEMATIC

**PART No.** | **DESCRIPTION** | **QTY**
--- | --- | ---
DVL-100 | DEL VIBRATOR ASSY, LG | 1
0703302 | FUSE 10A | 1
82-2164 | ATO FUSE HOLDER 14 GA, 20A | 1
7235B | MOMENTARY SWITCH 20A, 125V | 1
4795 | OPERATING SOLENOID | 1
762445 | BATTERY LUG | 8
761488M | RING TERMINAL | 3
761232 | CONNECTOR | 2
768436 | JACKETED CABLE 2/14 GA | 20'
769265B | CABLE 14 GA, BLACK | 50'
AMG-150 | FUSE 150A BOLT-IN | 1
HMG-211 | FUSE HOLDER | 1
761037M | RING TERMINAL | 1

**CAUTION!**

- This device is NOT intended for continuous operation.
- Operating time must be limited to no more than 5 second intervals with no less than 10 second cool down periods between cycles.

**NOTES:**

- Motor is grounded to vibrator housing.
- When installing on a dump body, a ground strap must be used between the body and truck frame.
- Do not use rear hinge for this ground.

Optional breaker manual reset:

P/N 185150F-01-1
The DIS (DEL Interlock Switch) requires a pulsed input to maintain a closed connection output using factory supplied safety equipment (4-way flasher switch) as the means of security and safety on mobile equipment. If the signal is removed, the device effectively switches open. The DIS is applied to any electrical motor control in hydraulic circuits such as used in small hoists, tailgate loaders or any hydraulic electric/hydraulic circuits being operated with an exterior switch. The DIS can be incorporated into any number of existing vehicles without difficulty.

Safety is achieved through the visible hazard lights which warn bystanders that an operation is in progress and prevents a casual bystander to accidentally operate the equipment when the vehicle is unattended. The in-cab indicator lights remind the operator to disable the unit by shutting off the hazard lamps. Security is provided since shutting off the hazard lights off, shuts the application’s electrical motor off.

If the 4-way flashers are NOT operational, the hydraulic circuit is NOT operational, ensuring - safe operating practice, bystander warning and added benefit of security.

**SIDE 1 VIEW**
Shows connection functions readout

**SIDE 2 VIEW**
Shows connections schematic

**INSTALLATION INSTRUCTIONS**
The DIS can be mounted anywhere in the application’s system between the 4-way Flasher Switch and the electrical motor control.

A. DIS terminal 1: Connect light panel to 4-way Flasher circuit
B. DIS terminal 2: Connect to ground
C. DIS terminal 3: Connect to 12 volt input
D. DIS terminal 4: Connect to output (Electric motor up/down solenoid)

**Part No.**
DIS-SP
DEL PRODUCTS ARE MANUFACTURED IN NORTH AMERICA WITH PRIDE

HYDRAULICS
Pneumatic Controls Solutions

DEL HYDRAULICS, INC.
50 STRADTMAN AVENUE
BUFFALO, NY 14206
TEL 716.853.7996
FAX 716.853.8003

www.delhydraulics.com

DEL Products are manufactured in North America with PRIDE.