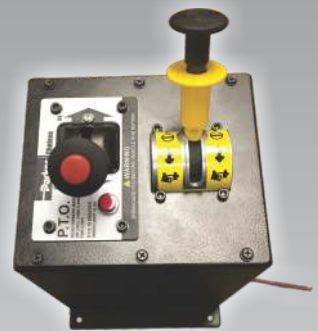
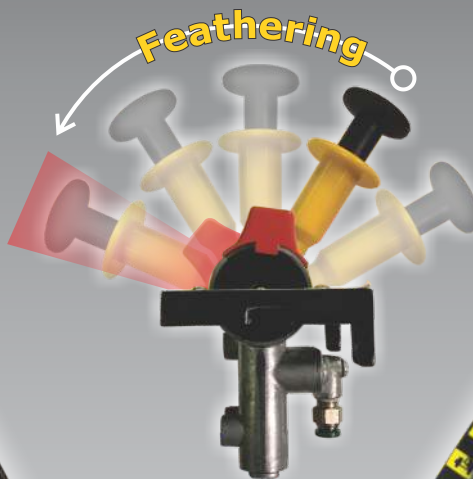


CONTROL SOLUTIONS

FOR MOBILE APPLICATIONS



DEL Products are manufactured in
North America with PRIDE.

DEL PUTS YOU IN CONTROL

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DEL PUTS YOU IN CONTROL

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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

PNEUMATIC JOYSTICKS



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:

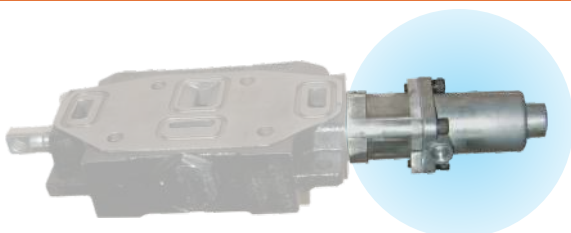
- Heavy Duty design
- Non-rotating design for the electric handle grips and lit knobs

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.

HYDRAULIC VALVE ACTUATORS



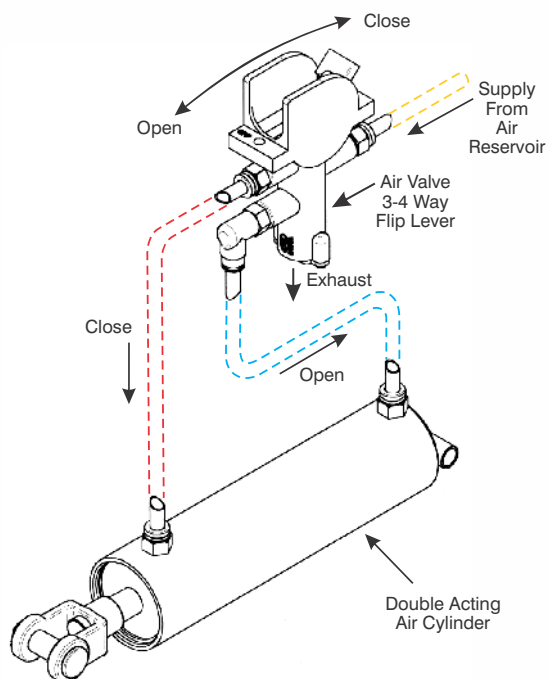
DEL's **Air Shift Cylinders** are designed to control the closing and opening of hydraulic valves by installing a pneumatic shift cylinder to the end of the hydraulic spool.

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

PNEUMATIC CONTROL VALVES

Valve Applications



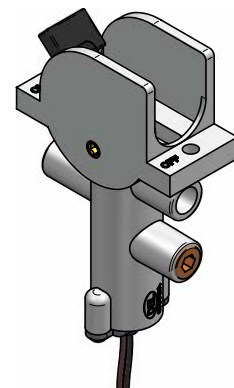
DAV-1201

2 POSITION, ON-OFF
LEVER

1201-99-05

2 POSITION, ON-OFF LEVER MICRO
SWITCH

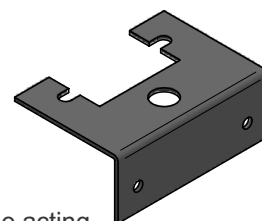
1201-99-06



BRK-1201

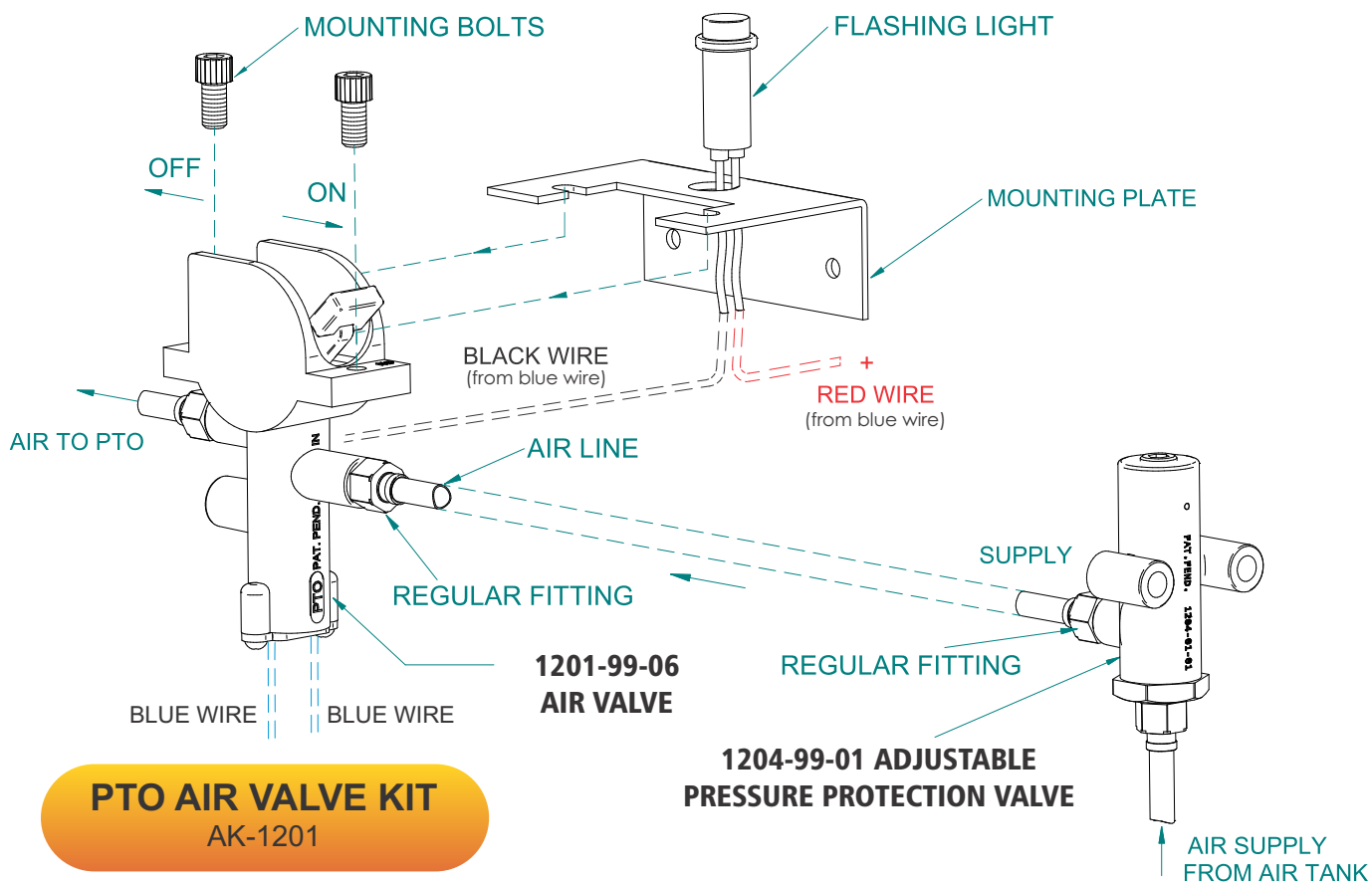
DASH MOUNTED BRACKET

DMPBRK-1201



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



PNEUMATIC CONTROL VALVES



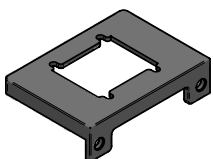
DAV-1202

HOIST CONTROL, RAISE,
NEUTRAL LOWER 1202-99-01

HOIST CONTROL, RAISE, LOWER
WILLIAMS PLATE 1202-99-20

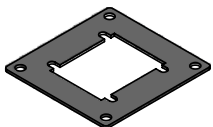
HOIST CONTROL, SPRING RETURN
FROM RAISE 1231-99-01

HOIST CONTROL, SPRING RETURN
FROM RAISE/LOWER 1232-99-01



BRK-1202

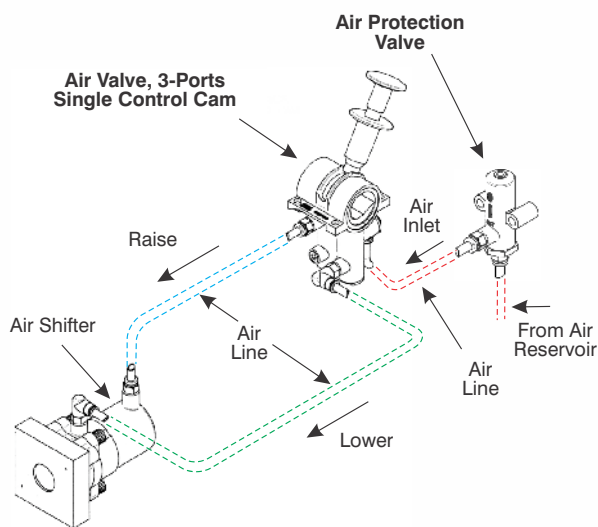
1202 DASH MOUNTED BRACKET
DMPBRK-1202



BRK-1202 WM

1202 WILLIAMS BRACKET
DMPBRK-1202-WM

Valve Applications



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**.

HOIST PTO CONTROL 1203-99-01

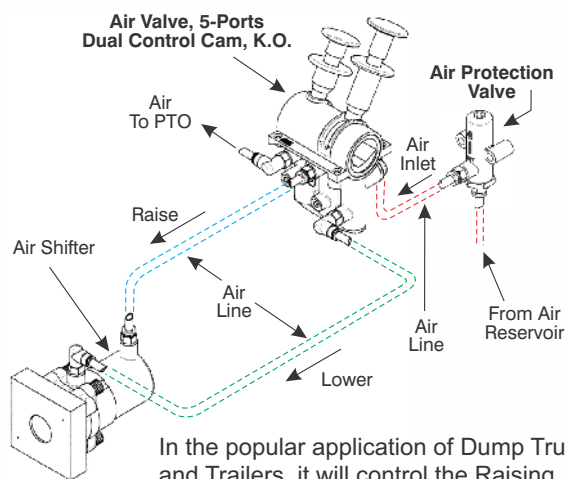
HOIST PTO CONTROL
PTO DISENGAGEMENT 1203-99-02

HOIST PTO CONTROL
SPRING RETURN FROM RAISE 1217-99-01

HOIST PTO CONTROL, SPRING
RETURN FROM RAISE/LOWER 1218-99-01

HOIST PTO CONTROL, SPRING
RETURN FROM RAISE,
PTO DISENGAGEMENT 1219-99-01

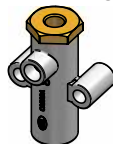
Valve Applications



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

PRESSURE PROTECTION VALVE

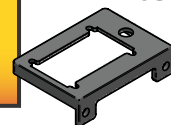
DAV-1204



ADJ. PRESSURE
PROTECTION
VALVE 1204-99-01

DASH MOUNT
BRACKET
DMPBRK-1203

BRK-1203



PNEUMATIC CONTROL VALVES

Pneumatic Solutions for **ASPHALT DRIVERS**
who can't spread with their current valves.
We have addressed the problem!

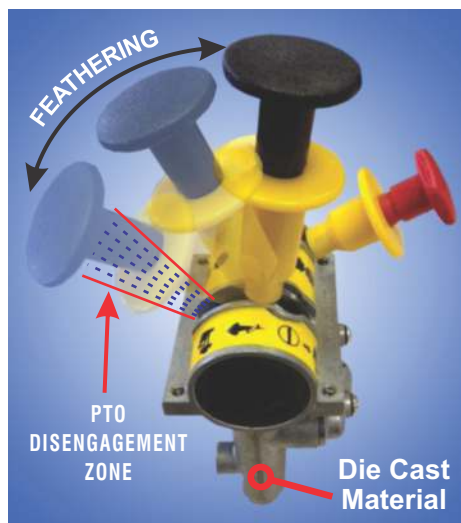
Now
you can spread
the easy way!

DAV 1203

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



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



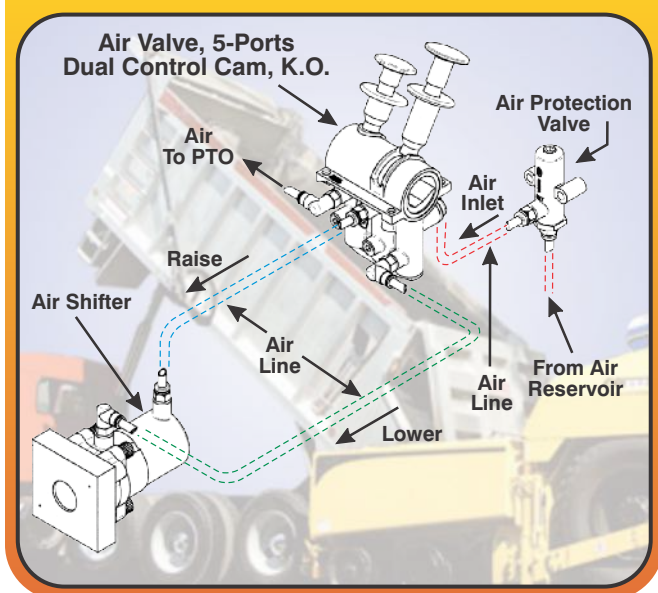
The **RED** SAFETY LIFT HANDLE engages & disengages the Power Take off (PTO). The **BLACK** LIFT HANDLE controls the raising, neutral & controlled lowering of pneumatic shift cylinders on various dump pumps. (Hoist). You do not have to reactivate the PTO to finish spreading asphalt.

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

HOIST PTO CONTROL PTO DISENGAGEMENT
Part No. 1203-02

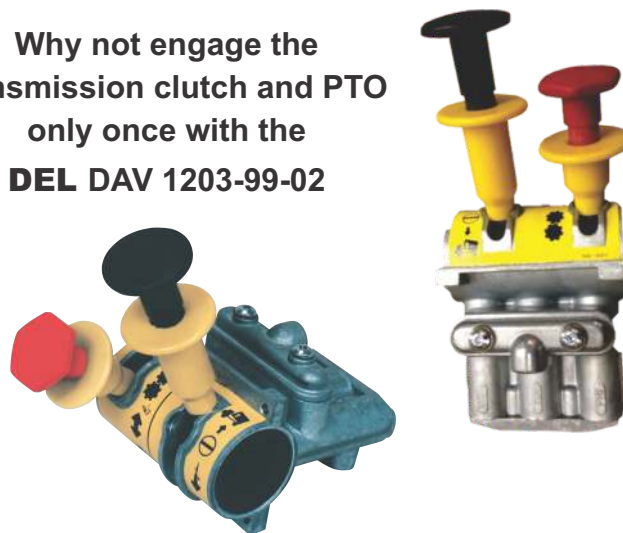
FULLY SERVICEABLE

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 ?

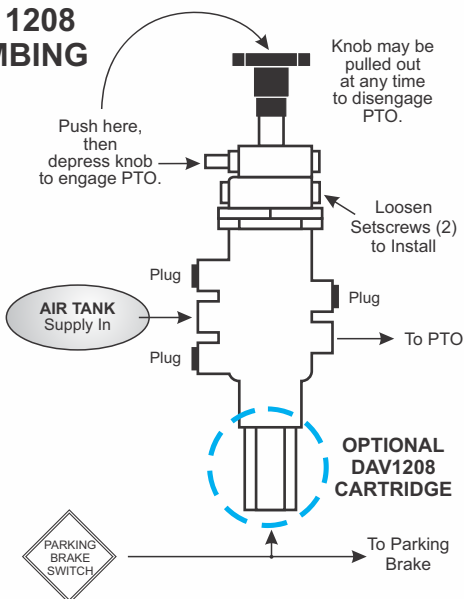
Why not engage the
transmission clutch and PTO
only once with the
DEL DAV 1203-99-02



PNEUMATIC CONTROL VALVES

Valve Applications

DAV 1208 PLUMBING



DAV-1205

2 POSITION, ON/OFF VALVE
WITH PIN LOCK

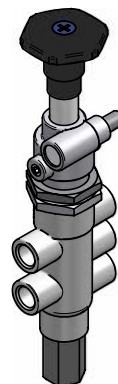
1205-99-01



DAV-1208

2 POSITION, LOCK OUT
PTO DISENGAGEMENT

1208-99-01



PROTECT & \$AVE 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.



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.

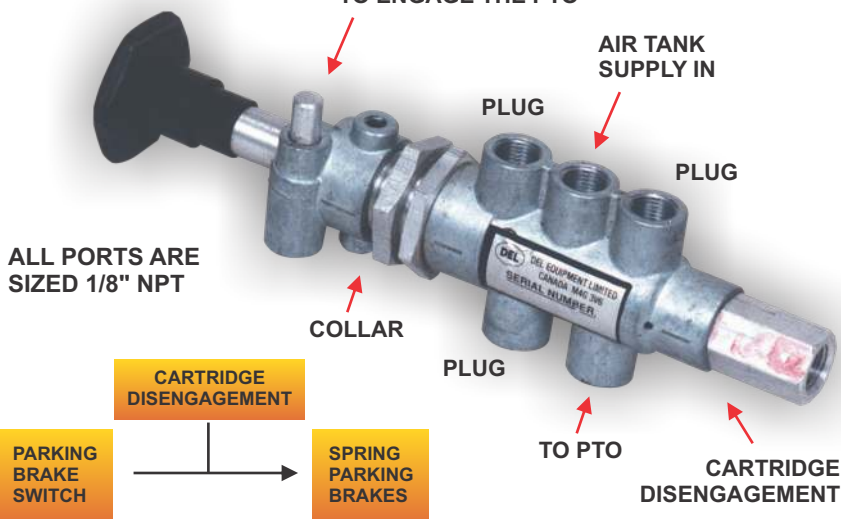
The DAV 1208 is ideal for
TAILGATE LATCHES and LIFT AXLES.

ALL PORTS ARE SIZED 1/8" NPT

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

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

PUSH THE PIN
INWARD, DEPRESS KNOB
TO ENGAGE THE PTO



ALL PORTS ARE
SIZED 1/8" NPT

DEL

**Control
Solutions**

A pneumatic valve with a small casting body that can easily be mounted in the mini console or tight spaces (without the mounting bracket).

DAV 1295 PTO/HOIST PNEUMATIC CONTROL VALVES

ANOTHER
INNOVATIVE PRODUCT
from
DEL

Universal Fit

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.



**1295-99-01
PTO/Hoist
Air Valve**



**1295-99-02
with Optional
On/Off
Pneumatic Valve**



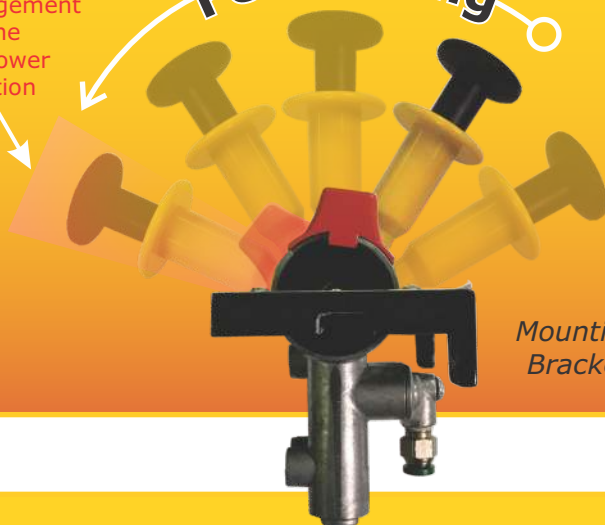
**1295-99-03
with Optional 1208
Open/Close
Tailgate Valve
& Safety Lock Pin**



**Bottom
View**

PTO
Disengagement
Zone
Full Lower
Position

Feathering



**Mounting
Bracket**



**Top
View**

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

**Fully
Serviceable**

See
**Schematics
on flip side
of this sheet.**

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.

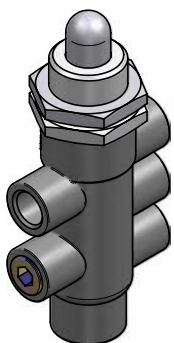
DAV-1213

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.

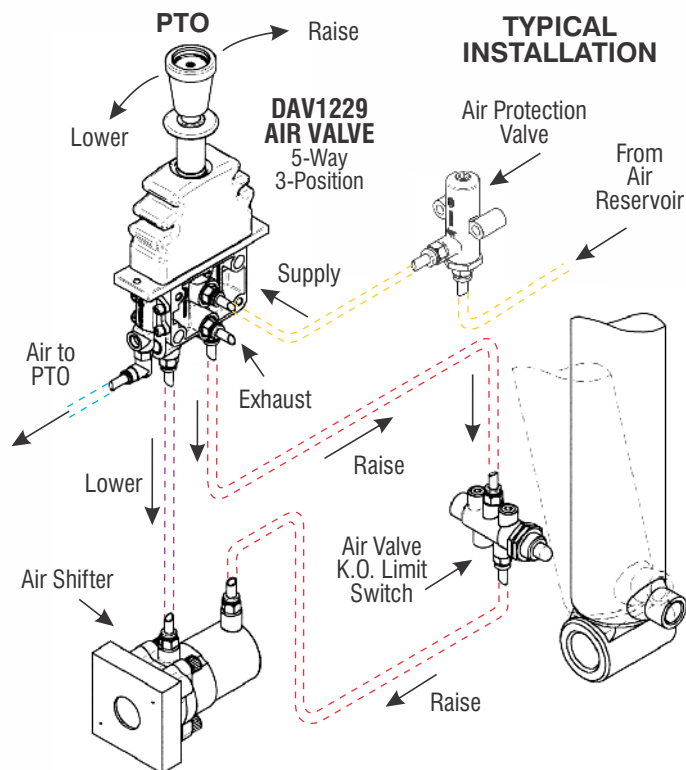
Valve & Bracket Kit



DAV 1214
with bracket

1214-KIT

Valve Applications

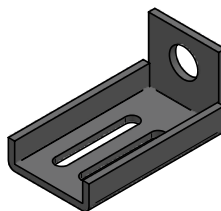


Applications include various air logic functions for positioning.

See next page for description.

BRK-1214

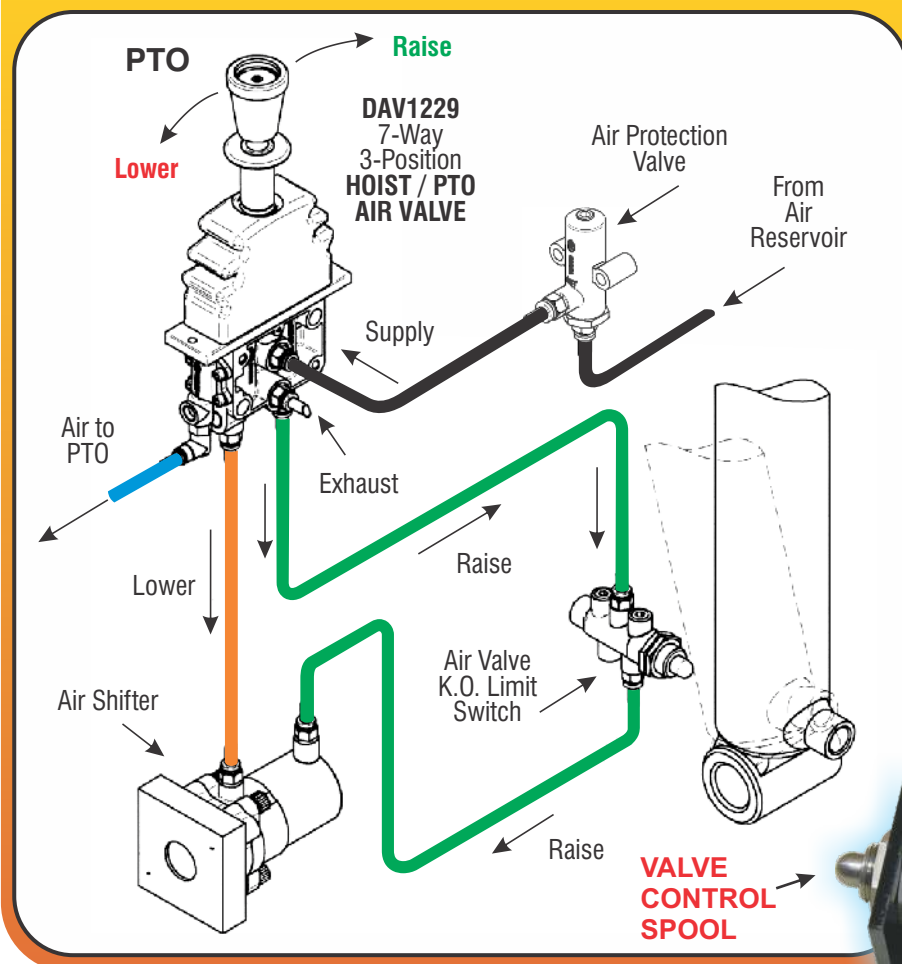
1214 BRACKET BRK-1214



DUMP ANGLE LIMIT VALVE

TYPICAL INSTALLATION


Pneumatically Limits the Stroke of the Hydraulic Cylinder



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.

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.
- 

DAV 1214
with adjustable
bracket



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.*

Various bent handles available for installation

FEATURES:

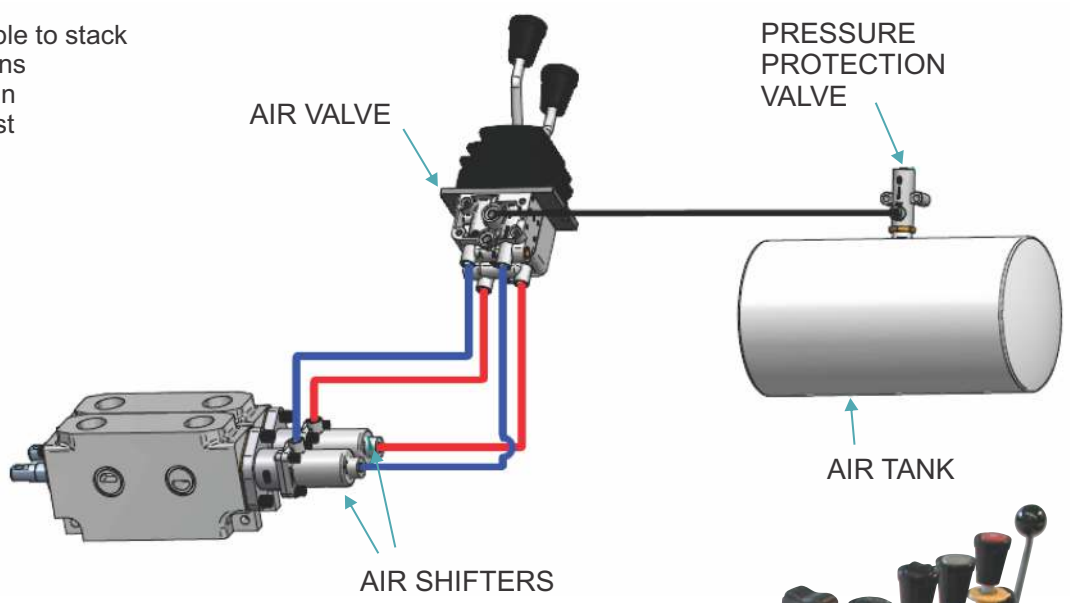
- 0-120 PSI proportional control, able to stack valves into bankable configurations
- Offset handles allow for very clean installation that reduces labor cost

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**

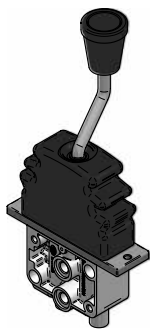


DAV-1221

| | |
|--|---------------|
| FEATHERING VALVE - STRAIGHT HANDLE | 1221-99-01 |
| VALVE SHORT STRAIGHT HANDLE, 3" | 1221-99-10 |
| VALVE, WILLIAMS VALVE, 521A SLIM VERSION | 1221-99-41 |
| VALVE, SINGLE DETENT | 1222-99-01 |
| VALVE, DOUBLE DETENT | 1223-99-01 |
| O-RINGS FOR INLET and EXHAUST PORTS | DAV1221-ORING |
| ASSEMBLY SCREW | DAV1221-SCREW |
| RUBBER BOOT | DAV1221-RBT |



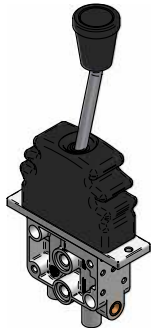
DAV1221 VALVES



DAV-1221

1221 VALVE
HALF BENT
HANDLE

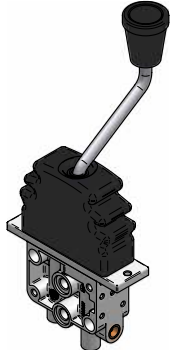
1221-99-02



DAV-1221

1221 VALVE
QUARTER BENT
HANDLE

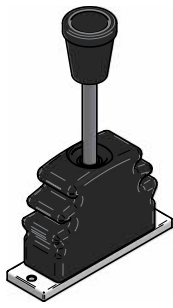
1221-99-07



DAV-1221

1221 VALVE
FULL BENT
HANDLE

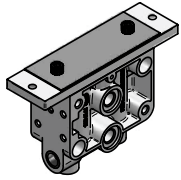
1221-99-03



DAV-1221UH

1221 UPPER
HANDLE
ASSEMBLY

DAV1221UH



1221SPCR

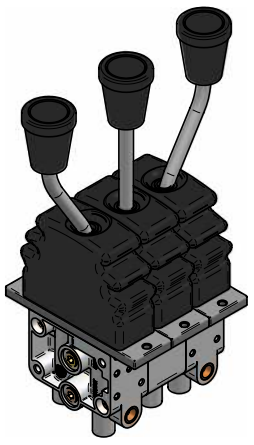
1221 SPACER
MANIFOLD BLOCK -

BANKABLE

DAV1221SPCRS

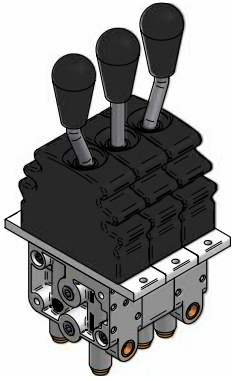
DAV-1221 BANKED

| | |
|--------------|------------|
| 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 3 BANK



DAV-1221 3 BANK SLIM



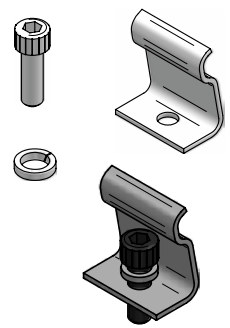
DAV1221 VALVES

DAV1224 VALVES

SPRING DETENT

DETENT CLIP

DETENTCLIPS



1221MNRE

MINOR REPAIR KIT

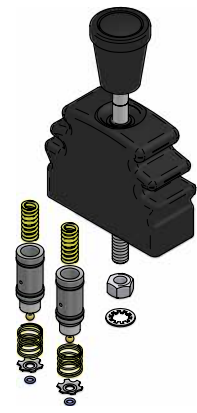
DAV1221MNRE



1221MJRE

MAJOR REPAIR KIT

DAV1221MJRE



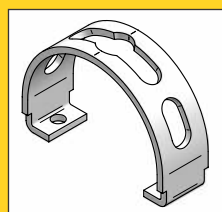
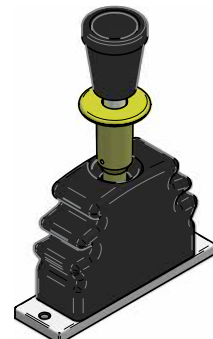
DAV-1224

| | |
|--|------------|
| 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 |
| VALVE, LOCK IN NEUTRAL, WILLIAMS PLATE | 1224-99-20 |
| VALVE, DUAL 1224 VALVE ASSEMBLY | 1224-1224 |



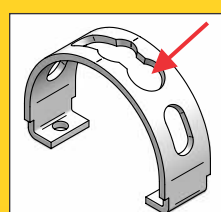
DAV-1224UH

| | |
|-----------------------|---------------|
| UPPER HANDLE ASSEMBLY | DAV1224-UH-03 |
| UPPER HANDLE ASSEMBLY | DAV1224-UH-04 |
| UPPER HANDLE ASSEMBLY | DAV1224-UH-05 |



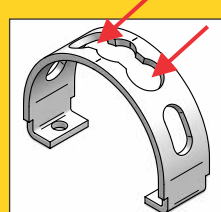
STEEL TRACK
FOR 1224-03

1264-84-21



STEEL TRACK
FOR 1224-04

1264-84-22



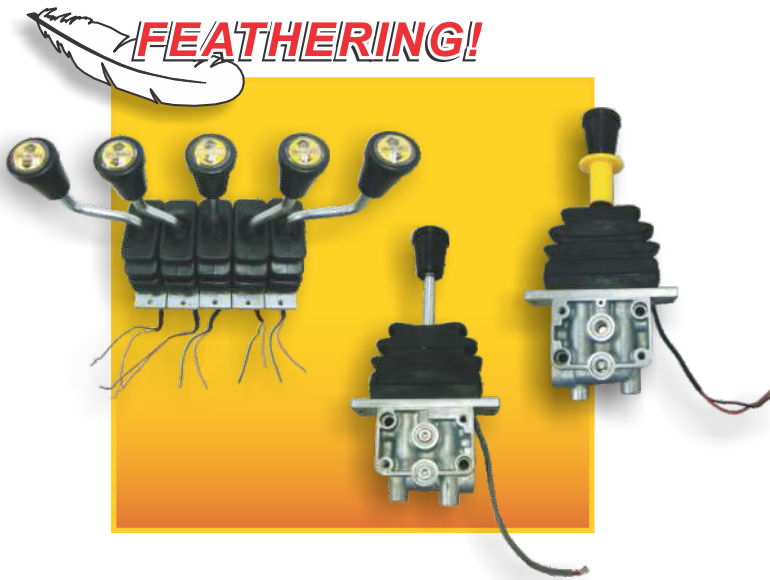
STEEL TRACK
1224-05

1264-84-23

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.



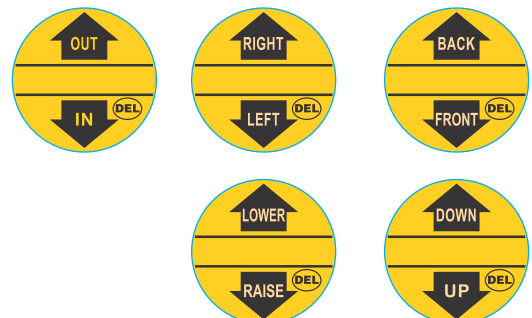
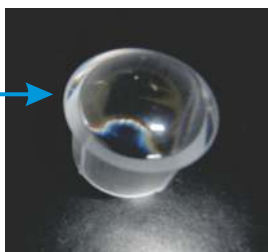
Back-lit Knob Decal Choices Available



MAG CAP



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



PNEUMATIC CONTROL VALVES

AIR CONTROLS with BACK-LIT KNOBS

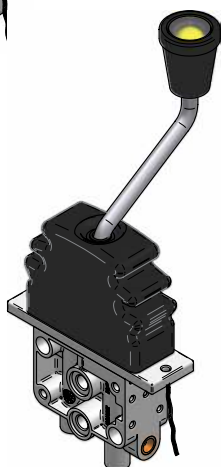
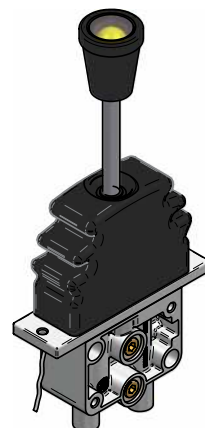
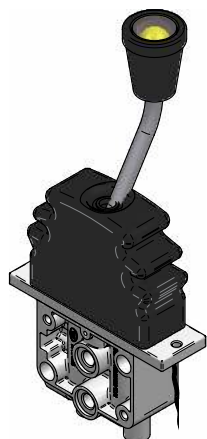


DAV-1261

VALVE, LIT KNOB
HALF BENT HANDLE 1261-99-02

DAV-1261

VALVE, LIT KNOB 1261-99-01

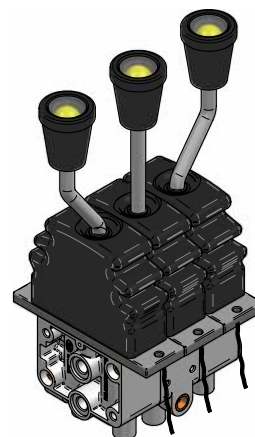


DAV-1261

VALVE, LIT KNOB
FULL BENT HANDLE 1261-99-03

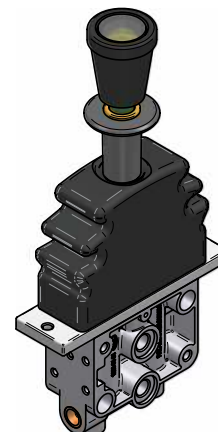
DAV-1261 BANKED

| | |
|------------------------|------------|
| 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 |

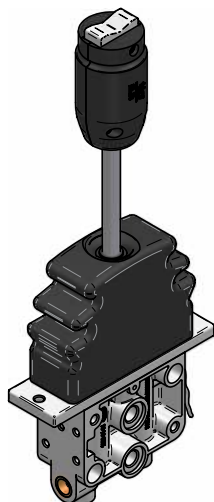


DAV-1264

| | |
|---|------------|
| 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 |



AIR CONTROLS with ELECTRIC SWITCHES

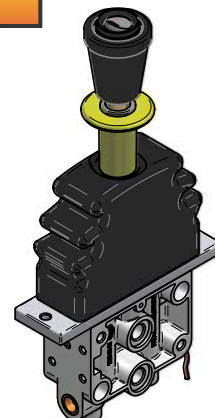


DAV-1271

| | |
|------------------------------------|------------|
| VALVE, 3-POSITION MOMENTARY SWITCH | 1271-99-01 |
| VALVE, 3-POSITION ON-OFF SWITCH | 1271-99-21 |
| VALVE, ON-OFF SWITCH | 1271-99-31 |

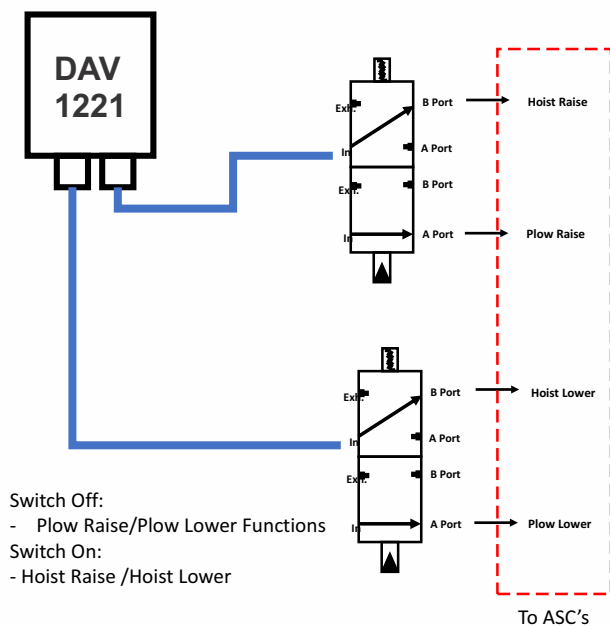
DAV-1274

| | |
|---|------------|
| 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 |



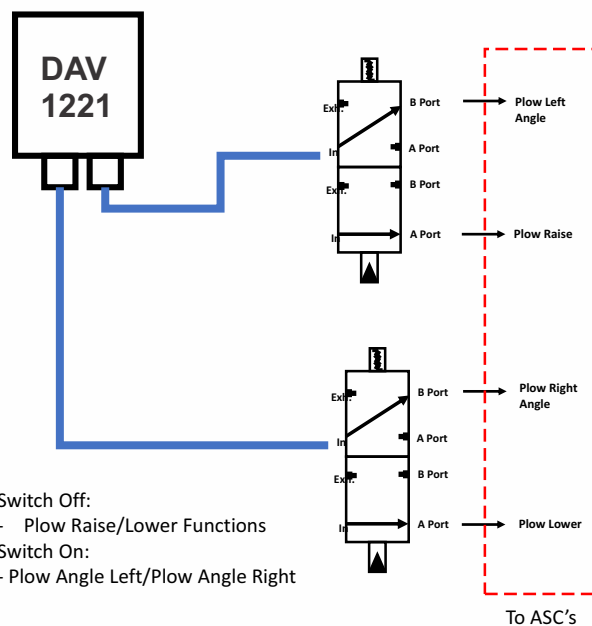
Valve Applications

Plow Raise/Lower & Hoist Raise/Lower



Valve Applications

Plow Only Functions

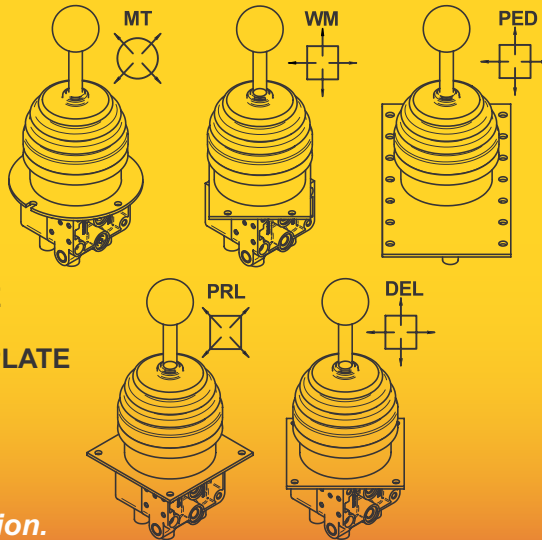


PNEUMATIC CONTROL VALVES

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.

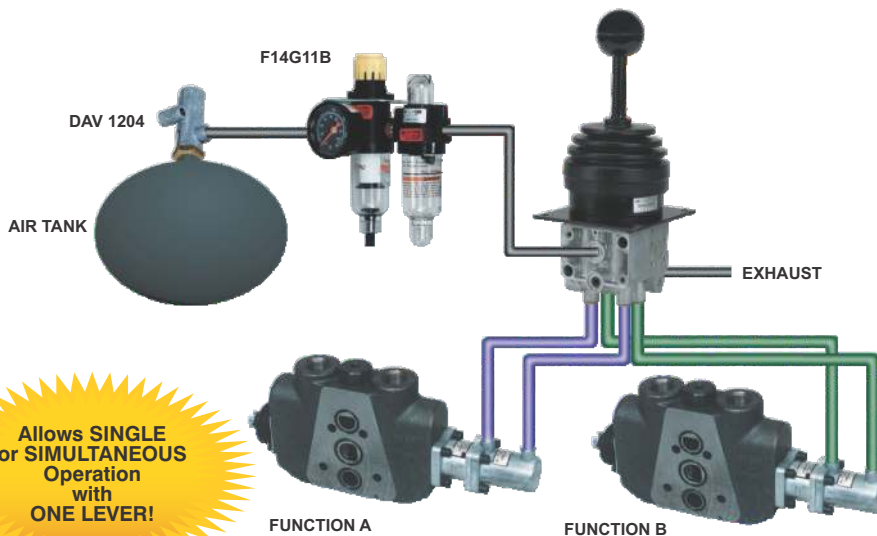
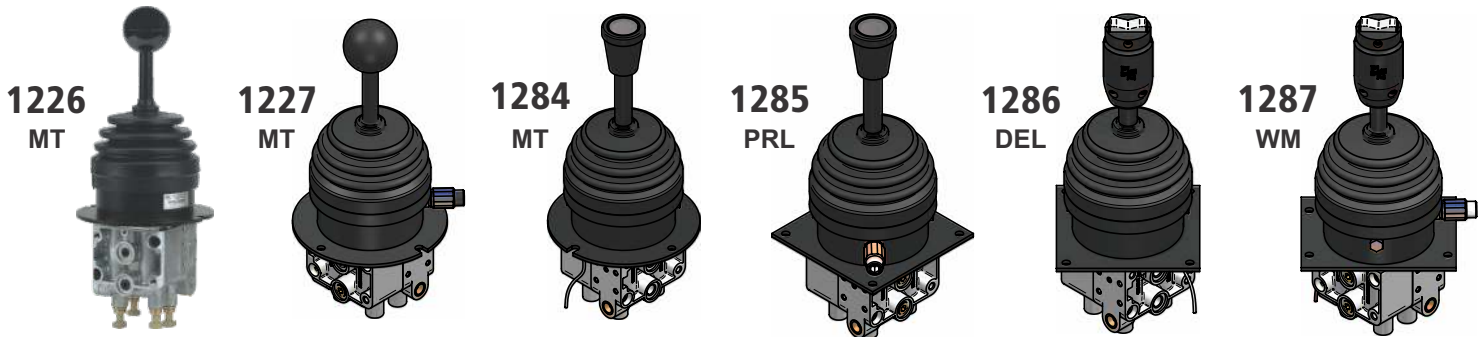
APPLICATIONS: front end loaders, roll offs, municipal snowplow trucks.

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



Allows SINGLE or SIMULTANEOUS Operation with ONE LEVER!

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

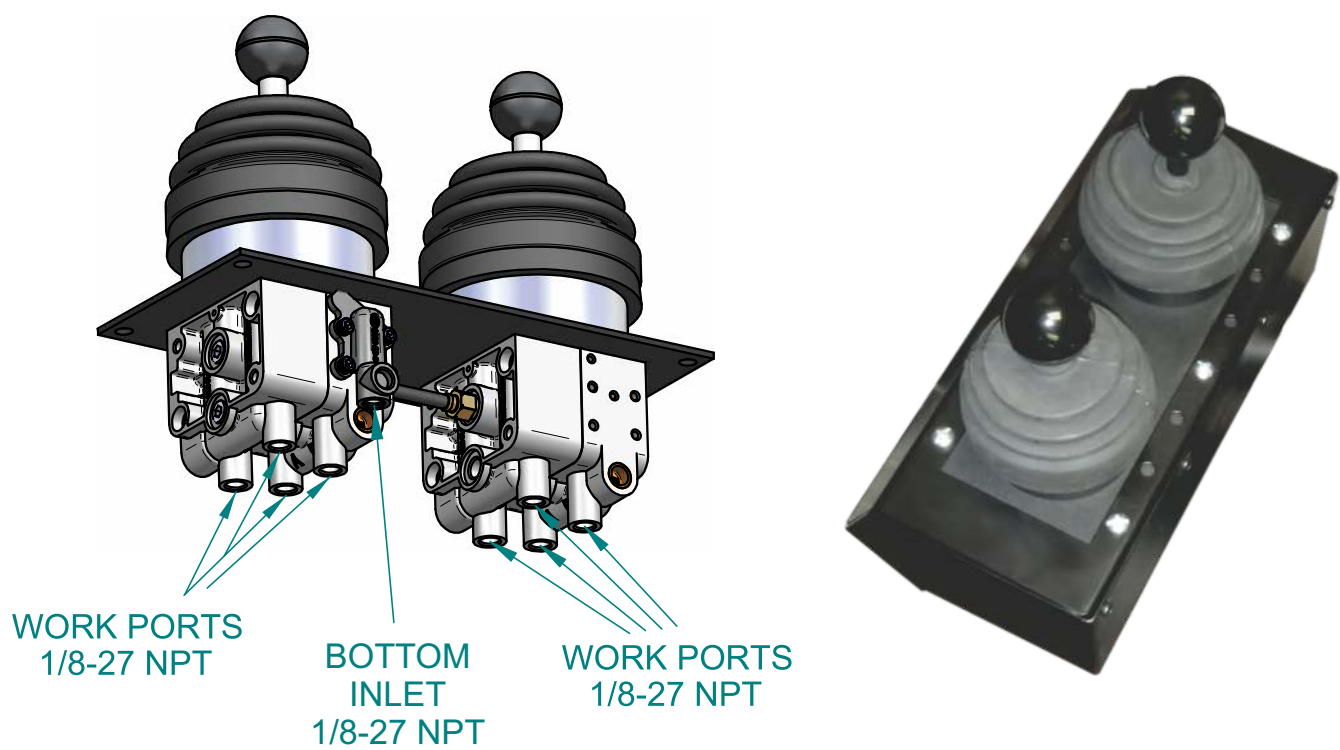


PNEUMATIC JOYSTICK VALVE PARTS

| PART No. | DESCRIPTION | |
|------------|-------------|--|
| 1226-99-01 | Valve | Round Plate |
| 1226-99-02 | Valve | Williams Plate |
| 1226-99-03 | Valve | Pedestal Plate |
| 1226-99-04 | Valve | Parallel Plate |
| 1226-99-05 | Valve | DEL Offset Plate |
| 1226-99-11 | Valve | Round Plate, Gated |
| 1226-99-31 | Valve | Round Plate, PIC Fittings |
| 1226-99-32 | Valve | Williams Plate, PIC Fittings |
| 1226-99-34 | Valve | Parallel Plate, PIC Fittings |
| 1226-99-43 | Valve x2 | Pedestal Plate |
| | | |
| 1227-99-11 | Valve | Round Plate, Detente |
| 1227-99-13 | Valve | Pedestal Plate, Detente |
| | | |
| | | |
| 1285-99-03 | Valve | Pedestal Plate, Lit Knob, Detente |
| | | |
| 1286-99-06 | Valve | Round Plate, 3-pos., Momentary Grip, HD Springs |
| 1286-99-09 | Valve | Parallel Plate, 3-pos., Momentary Grip, HD Springs |
| 1286-99-10 | Valve | DEL Offset Plate, 3-pos., Momentary Grip, HD Springs |
| | | |



DUAL PNEUMATIC JOYSTICKS

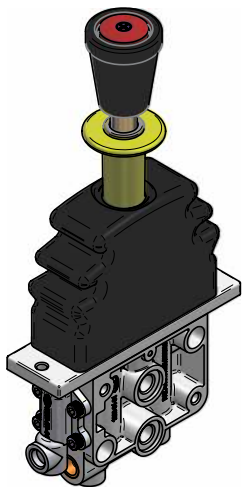


MINOR and MAJOR SERVICE KITS FOR PNEUMATIC JOYSTICKS

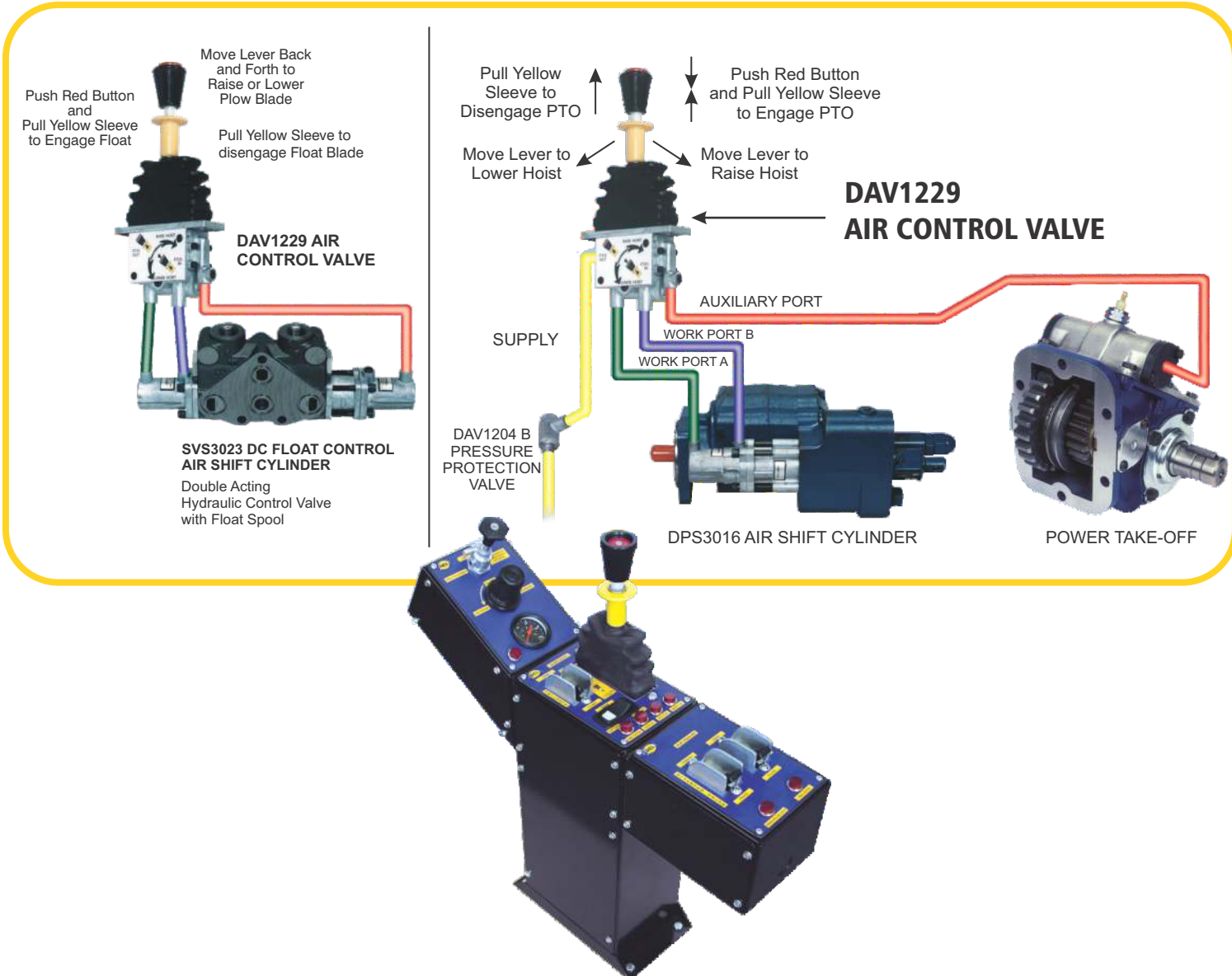
| DAV1226MNRE | DAV1226MJRE | DAV1226HDMNRE | DAV1226HDMJRE |
|------------------|------------------|---------------------|---------------------|
| | | | |
| MINOR REPAIR KIT | MAJOR REPAIR KIT | HD MINOR REPAIR KIT | HD MAJOR REPAIR KIT |

PTO HOIST AIR VALVE

DAV-1229



| | |
|--|------------|
| PTO / HOIST VALVE, RAISED BUTTON | 1229-99-21 |
| PTO / HOIST VALVE, PTO DISENGAGEMENT | 1229-99-02 |
| PTO / HOIST VALVE, DOUBLE DETENT | 1229-99-03 |
| PTO / HOIST VALVE, SINGLE DETENT | 1229-99-04 |
| PTO / HOIST VALVE, PTO DISENGAGEMENT, DETENT | 1229-99-05 |



DAV 1229 OPTIONS

1229MNRE

MINOR REPAIR KIT

DAV1229MNRE

1229MJRE

MAJOR REPAIR KIT

DAV1229MJRE

1229

ARM KNOCK OFF

1229-38-31

1229SW

VALVE WITH PRESSURE SWITCH

1229-99-06

The **red button** converts an air signal to an electrical signal.

Applications -

Electric Solenoids and/or Electric Shift PTO's.

DAV-1229UH

UPPER HANDLE ASSEMBLY,
RAISED BUTTON

1229-9S-32

DAVFK-1229BRK

TUBING &
FITTING KIT

DAVFK1229BFBK

BRK-1229

VALVE
BRACKET

DMP-1229BRK



DAV 1229 SEAT MOUNTED APPLICATION KIT

QUICK & SIMPLE INSTALLATION

Supplied air is fed through the system's pressure protection valve and a simple "T" from the air seat to the air valve.



Fully installed.

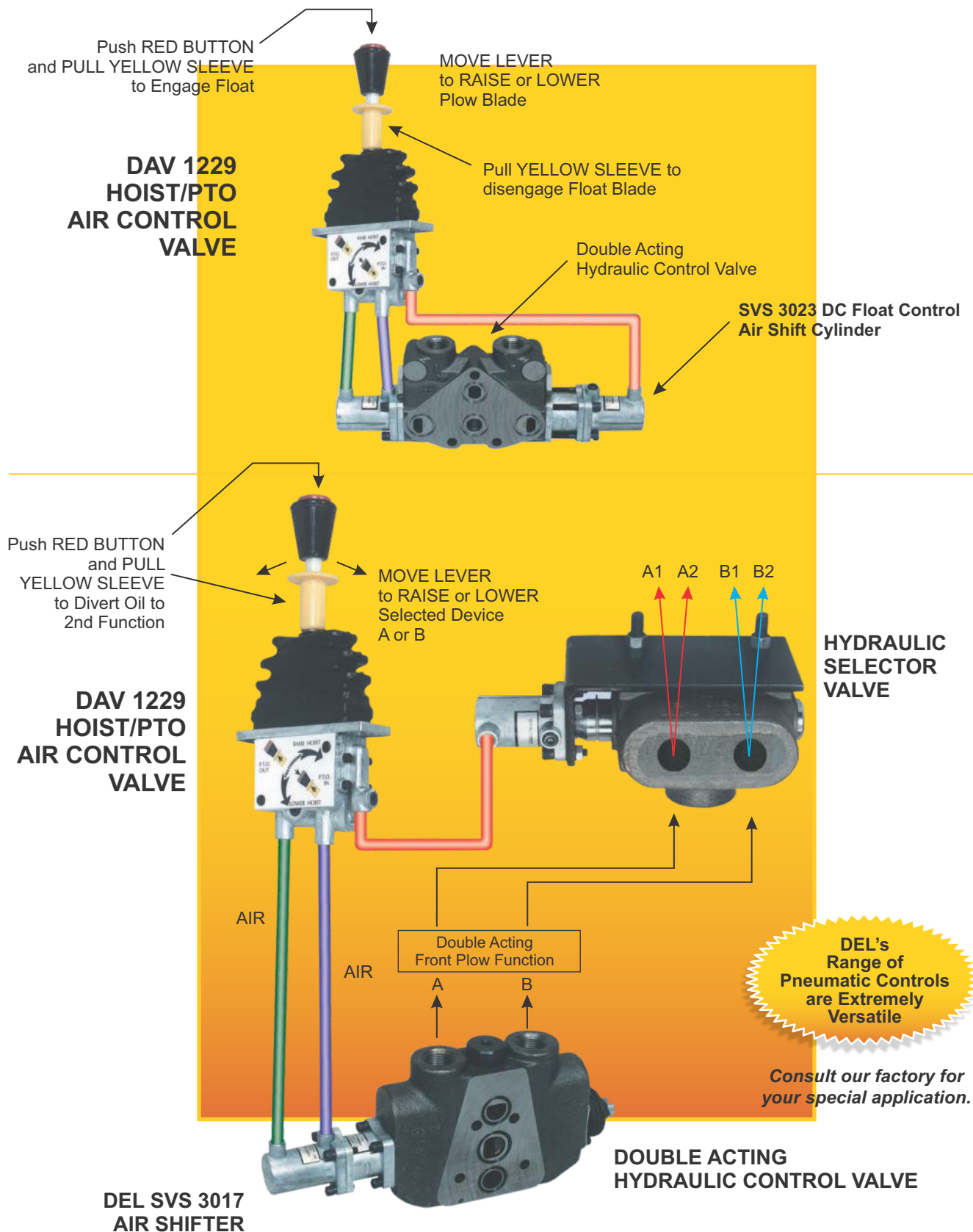


Installing the valve onto the seat bracket.



Operating the P.T.O. and Dump.

TYPICAL DAV 1229 HYDRAULIC PNEUMATIC APPLICATIONS



PNEUMATIC COMBO KIT

WALKING FLOOR + END DUMP?

DEL HYDRAULICS makes it
MORE EFFICIENT and **SAFER**

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

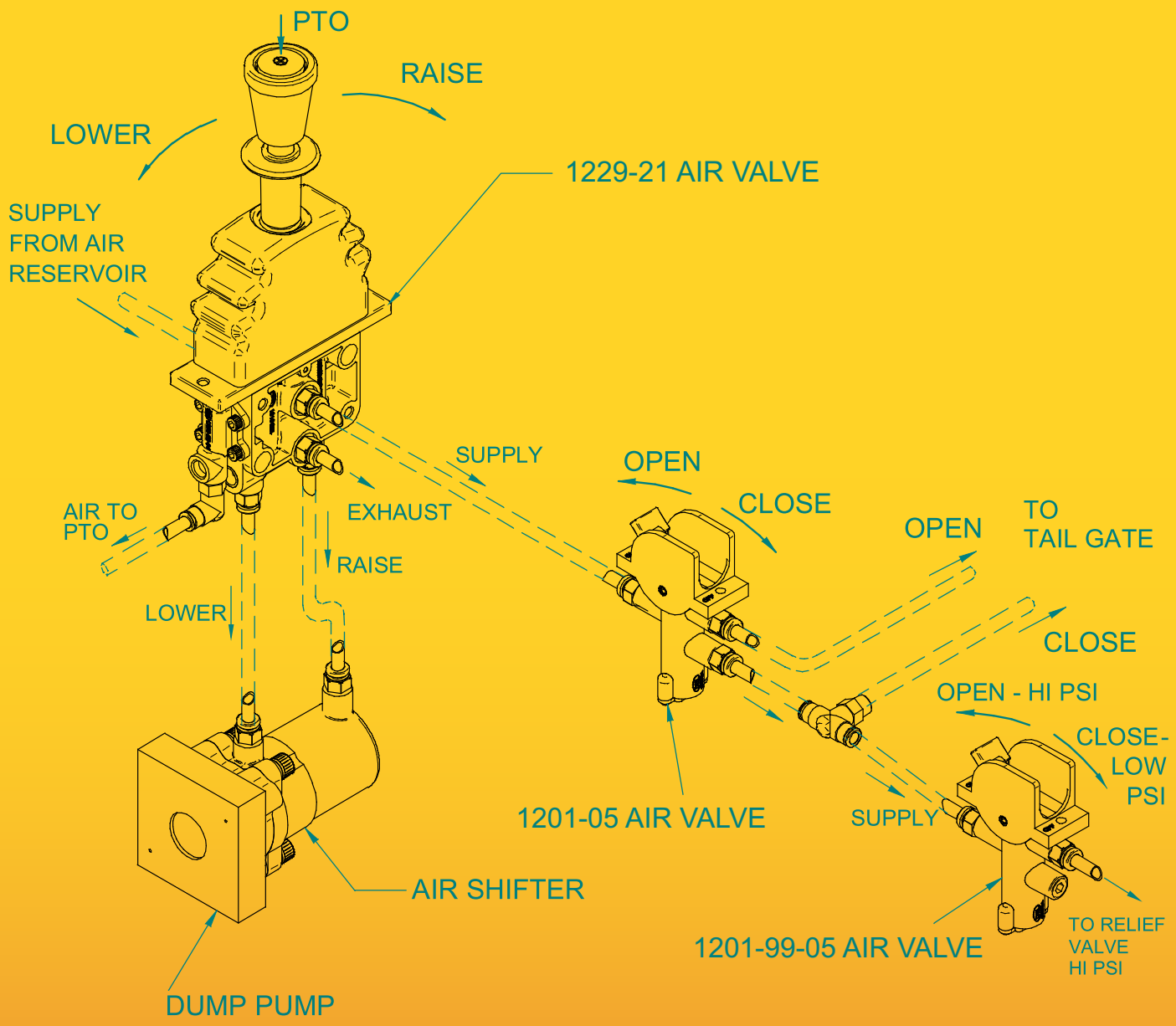


DAV1201
See Page 3



DUAL APPLICATION SCHEMATIC

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 CAN NOT OPERATE THE RELIEF VALVE IN HI PRESSURE MODE. THE RELIEF VALVE WILL BE IN LOW PRESSURE MODE.



ALL INFORMATION IN THIS DRAWING IS COPYRIGHT PROTECTED.

1229-1201-1201
TO OPERATE DUAL
APPLICATION SYSTEMS



UNITS: INCHES

SCALE: NTS

CHKD:
DRWN: O.S. Mar. 14/06
REVD:

SHEET SIZE: A

REV.

PNEUMATIC CONTROL KIT for HYDRAULIC WINCH APPLICATIONS

FEATHERING!

1221-99-02

1229-99-21

1208-99-01

1201-99-06

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.

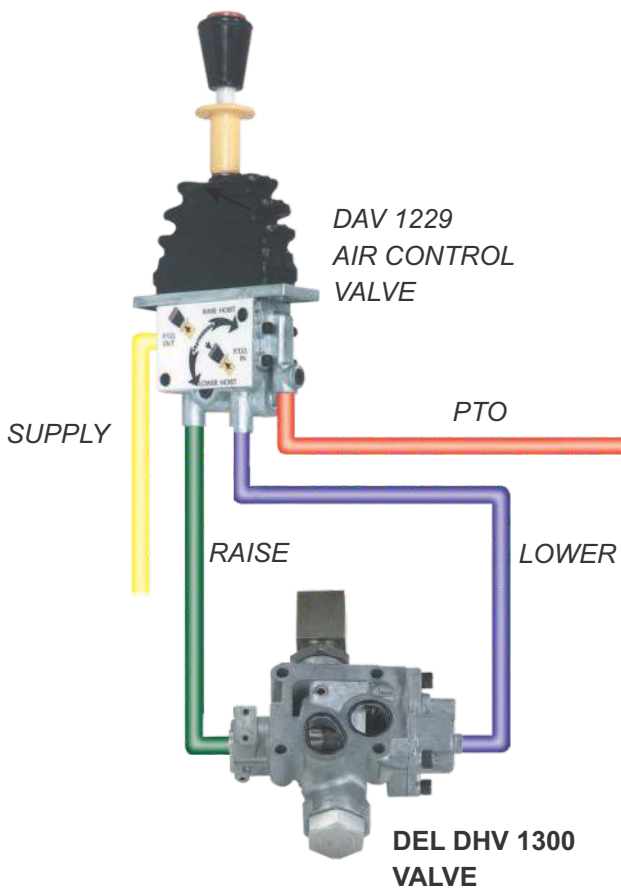
1208-99-01 – Push the side safety pin inwards and depress the black knob to engage the PTO. (The air valve is supplied with a pilot cartridge assembly to automatically disengage the PTO when the spring parking brakes are released).

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

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



| Model | Valve Specifications | Part No. |
|-------|---|------------|
| F1 | 50 GPM, air operated, piloted, fast lower | 1301-99-01 |
| F2 | 25 GPM, cable operated, feathering needle, slow lower | 1302-99-01 |
| F3 | 25 GPM, cable operated, medium lower | 1303-99-01 |
| F4 | 50 GPM, cable operated, piloted, fast lower | 1304-99-01 |
| F5 | 25 GPM, air operated, feathering needle, slow lower | 1305-99-01 |

- Lowering Release Needle
 - Work Port Check Valve
 - Spring Centering Spool
 - Relief Valve
 - Built-in Air Cylinders
- (see specific model above)

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.

Reservoir Tanks c/w Breather Filler

*Various sizes available.
Please consult factory.*



DUMP PUMP ACTUATORS

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.

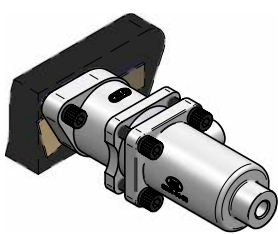
| APPLICATION | | PART No. |
|-------------|------------------------------------|------------|
| PARKER | C101/102 | 3016-99-01 |
| PARKER | G101/102-NON DETENT | 3010-99-02 |
| MUNCIE | E/EH, C101, 102 | 3016-99-01 |
| PERMCO | DM640 | 3016-99-01 |
| PERMCO | DMD25 | 3035-99-01 |
| PERMCO | DMD400 (Direct) DMR400 (Remote) | 3051-99-01 |



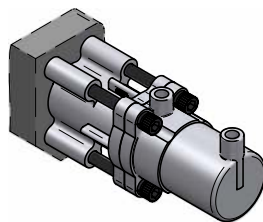
PNEUMATIC CONTROL SHIFTERS for HYDRAULIC PUMPS

- 3016-99-01 Commercial C101/102
Muncie E2XL
Permco DMD25/DM640
Buyers BPC, Metaris
- 3010-99-01 Commercial G101/102 Detent
- 3010-99-02 Commercial G101/102 Non-detent
- 3051-99-01 Permco DM400, DMR400

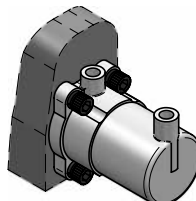
3016-99-01



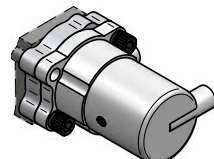
3010-99-01
3010-99-02



3016-99-01



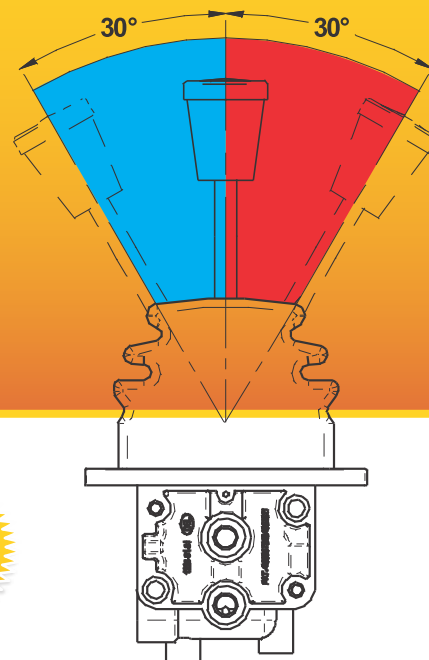
3035-99-01



3051-99-01

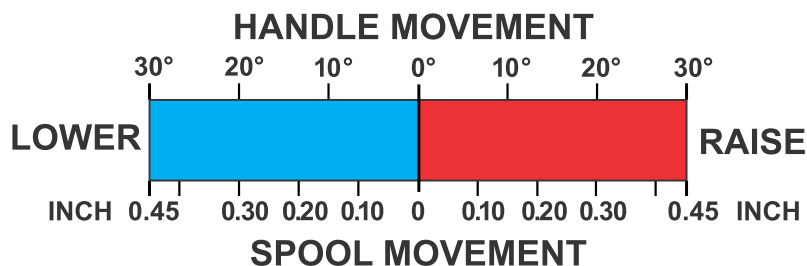
HYDRAULIC VALVE ACTUATORS

| APPLICATION | | | PART NO. | APPLICATION | | | PART NO. |
|---------------|----------------|------------|----------|---------------|-------------------|------------|----------|
| PARKER | A20 | ASC-A20 | | FLODRALICS | HYDROCONTROL-D16 | 3039-99-03 | |
| PARKER | A20-K4 FLOAT | 3009-99-01 | | HUSCO | 5000 SERIES | 3038-99-03 | |
| PARKER | A35 | 3019-99-03 | | HUSCO | 6000 SERIES - 375 | 3037-99-03 | |
| PARKER | 25P | 3017-99-03 | | WALVOIL | DLS8 | 3060-99-03 | |
| PARKER | V20 | ASC-V20 | | SALAMI | VD6A | 3061-99-03 | |
| PARKER | V20-K4 FLOAT | 3023-99-03 | | SALAMI | VDM6 | 3063-99-03 | |
| PARKER | V40 | 3027-99-03 | | SALAMI | VD8A | 3062-99-03 | |
| PARKER | V42 | 3015-99-03 | | SALAMI | VDM8 | 3064-99-03 | |
| PARKER | S75 | 3033-99-01 | | SALAMI | VD10A | 3071-99-03 | |
| PARKER | DS75 | 3029-99-01 | | SALAMI | VD12A | 3072-99-03 | |
| PARKER | S-100 | 3034-99-01 | | BLB | 150 SERIES | 3075-99-03 | |
| PARKER/KONTAK | K-18 | 3050-99-03 | | SAUER DANFOSS | PVG32-EL-SL | 3082-99-04 | |
| REXROTH | MP-18 | 3018-99-03 | | SAUER DANFOSS | PVG32-MAN | 3083-99-06 | |
| REXROTH | MP-4 | 3059-99-03 | | WILLIAMS | 08 SERIES | 3025-99-03 | |
| CROSS | BA | 3026-99-03 | | BUCHER | HDS-15 | 3087-99-03 | |
| CROSS | S-100 | 3081-00-01 | | | | | |
| HEIL | 031-6131-HPT | 3043-99-01 | | | | | |
| PRINCE | 20 SERIES | 3013-99-06 | | | | | |
| PRINCE | 5100 MONOBLOCK | 3024-99-03 | | | | | |
| PRINCE | SS2A10 | 3054-99-03 | | | | | |
| PRINCE | SV | 3055-99-03 | | | | | |
| PRINCE | DS41AE | 3056-99-03 | | | | | |
| PRINCE | DS41AE | 3057-99-03 | | | | | |



**Self Alignment
Feature Eliminates
Binding**

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.



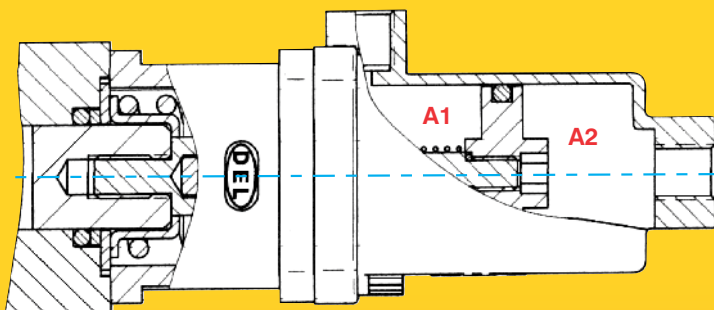
PNEUMATIC CONTROL VALVES

E-Z FIT PNEUMATIC SHIFT CYLINDERS HYDRAULIC VALVE APPLICATIONS

PRE-ASSEMBLED!

ULTRA COMPACT!

SIMPLER INSTALLATION!



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

*Tighten the assembly
with a hex wrench*

**All moving parts are
TOTALLY ENCLOSED!**

DON'T GET CAUGHT IN A BIND!

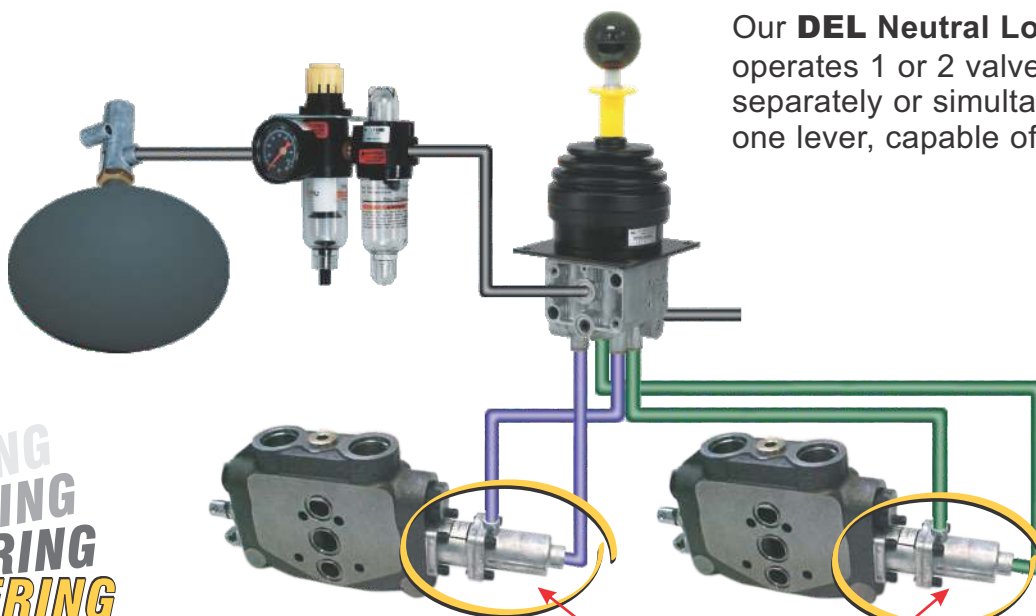
*Only DEL E-Z Fit Pneumatic Shift Cylinders
offer these important safety features.*

**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.



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



**EZ-FIT SHIFT
CYLINDERS**

FEATHERING
FEATHERING
FEATHERING

14 GAUGE CUSTOM CONTROL CONSOLE KITS

| Part No. | | Console Height | | | |
|--|--|--|-----|-----|-----|
| | | 5" | 10" | 14" | 16" |
|  CONKIT1202 | | A | B | - | - |
| | | A | B | - | - |
|  CONKIT1221 | | - | B | C | D |
| | | Can be used for: DAV1221, 1224, 1229, 1261 & 1264 | | | |
|  CONKIT1221X2 |  CONKIT1221X3 | - | B | C | - |
| | | - | B | C | - |
| | | - | B | C | - |
| | | - | B | C | - |
|  CONKIT1226-01 | | - | B | C | - |
| | | MT/Round plate joystick | | | |
| | | - | B | C | - |
| | | Parallel plate joystick | | | |
| | | A | B | C | - |
| | | A | B | C | - |
|  CONKIT1295-01 | | A | B | C | - |
| | | A | B | C | - |
| | | A | B | C | - |

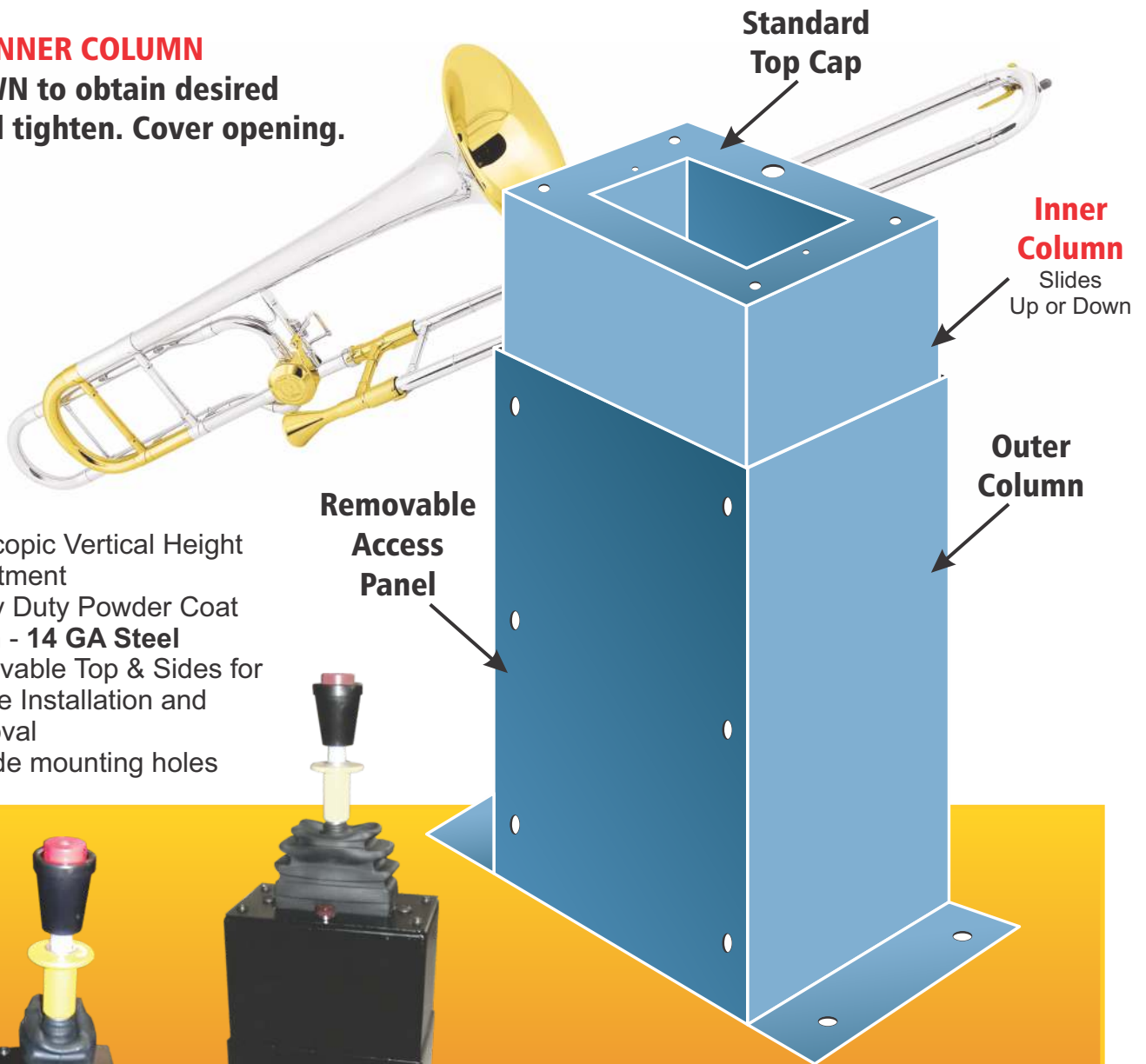
**MORE CUSTOM CONTROL KITS
AVAILABLE TO FIT YOUR SPECIFIC APPLICATIONS**

Call us today (716) 853-7996

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

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.

- 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

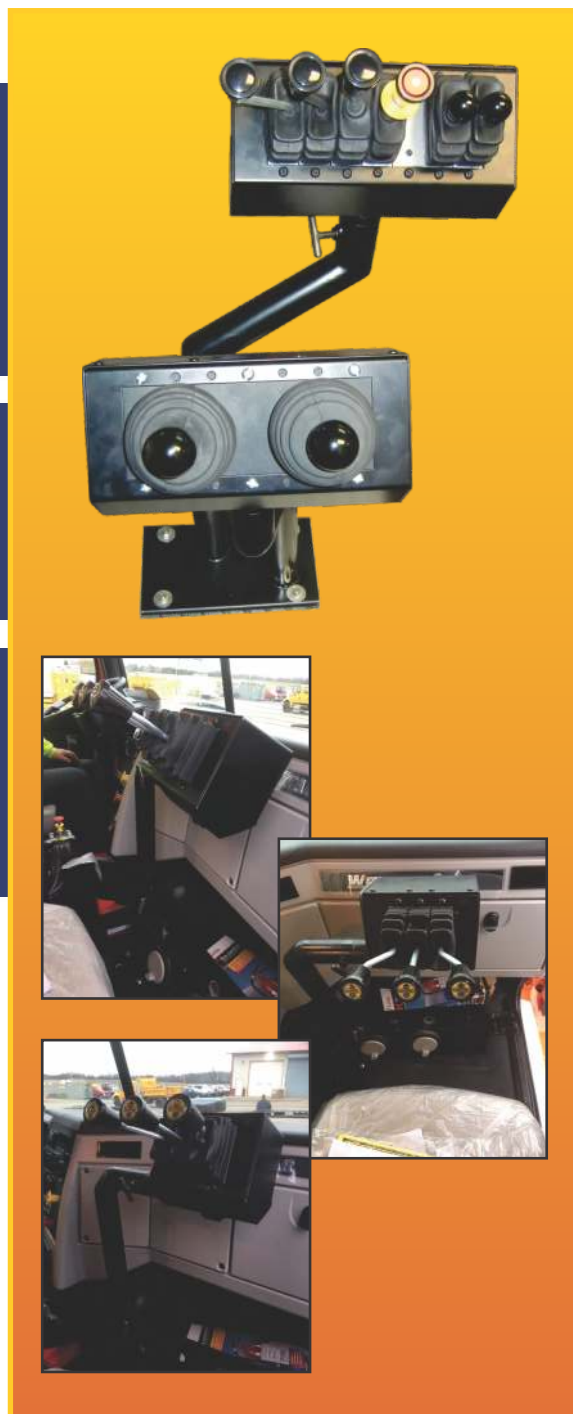


Swivel Pedestal Available with

- 2 STACKABLE VALVES
- 3 STACKABLE VALVES
- 4 STACKABLE VALVES
- 5 STACKABLE VALVES
- 6 STACKABLE VALVES
- 7 STACKABLE VALVES
- 9 STACKABLE VALVES
- 11 STACKABLE VALVES

TOP & MIDDLE SECTIONS SWIVEL INDEPENDENTLY!

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.



SWIVEL PEDESTAL TOPS



2 TOP

TOP SECTION
2 STACKABLE VALVES DSNP 2T



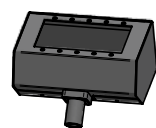
3 TOP

TOP SECTION
3 STACKABLE VALVES DSNP 3T



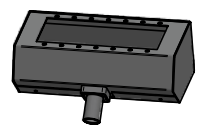
4 TOP

TOP SECTION
4 STACKABLE VALVES DSNP 4T



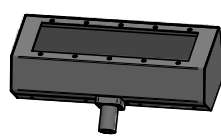
5 TOP

TOP SECTION
5 STACKABLE VALVES DSNP 5T



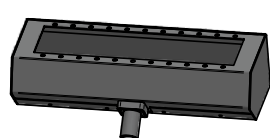
6 TOP

TOP SECTION
6 STACKABLE VALVES DSNP 6T



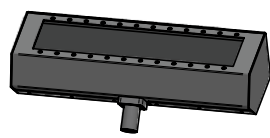
7 TOP

TOP SECTION
7 STACKABLE VALVES DSNP 7T



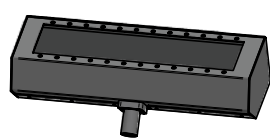
9 TOP

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

BOTTOM SECTION
Adjustable HT
DSNPBG-5-8ADJ



8" BOTTOM SECTION

BOTTOM SECTION
8" HT
DSNPBG8



12" BOTTOM SECTION

BOTTOM SECTION
12" HT
DSNPBG12



16" BOTTOM SECTION

BOTTOM SECTION
16" HT
DSNPBG16



16" BOTTOM SECTION with side opening

BOTTOM SECTION
16" HT
DSNPBG16H



MIDDLE SECTION

MIDDLE SECTION
DSNPM

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.**

**Driver Side
Controls**

**Passenger Side
Controls**

**Padded
Arm Rest**

**Sturdy
Middle Tube
with Variable
Positioned
Locking feature.**



**Add More Control
to
Municipal Snow Plows**



Photo courtesy of New England Truck Eq.

Custom Configurations Available

SUPER-DUTY ACK SYSTEM

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



Ford 550 Super Duty (shown)
and similar vehicles.

Feathering Air Controls!

KIT INCLUDES:

- **Oil-less operated Air Compressor/Motor**

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.

- **14 Ga. Mounting Enclosure**

Painted with Sandex Powder Coat finish.

Dimensions: Height: 8.75", Width: 8.00", Length: 11.00"

- Relay Switch
- Pressure Switch
- Unique Reservoir Tank



**Wide Variety of
Control & Air Shift
options available
to customize your
system & meet
your exact needs**

SUPER-DUTY ACK SYSTEM

Feathering Controls with LED Back-Lit Knobs



For All Lighting Conditions

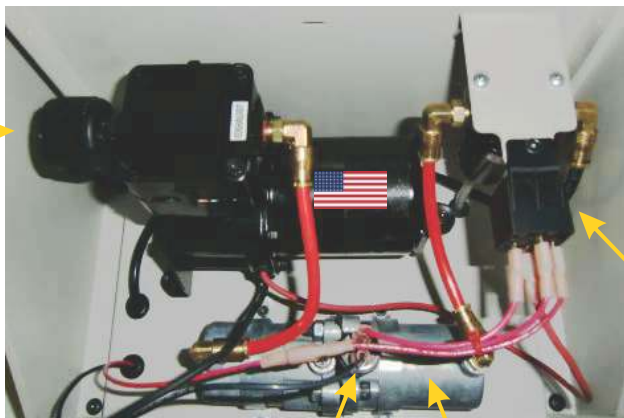


- 4 way metering bankable air valves, ergonomically designed with spring return to neutral position remotely control the metering action of pneumatic shift cylinders on various hydraulic valve spools of central hydraulic systems.
- Available with single detent, double detent, neutral detent, as well 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.



DEL SUPER-DUTY AIR COMPRESSOR KIT

Oil-less
operated
Air Compressor/
Motor



Pressure Switch

Unique Reservoir Tank
with Petcock Drain

Moisture
Separator



14 Ga.
Mounting
Enclosure

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

SUPER-DUTY ACK SYSTEM



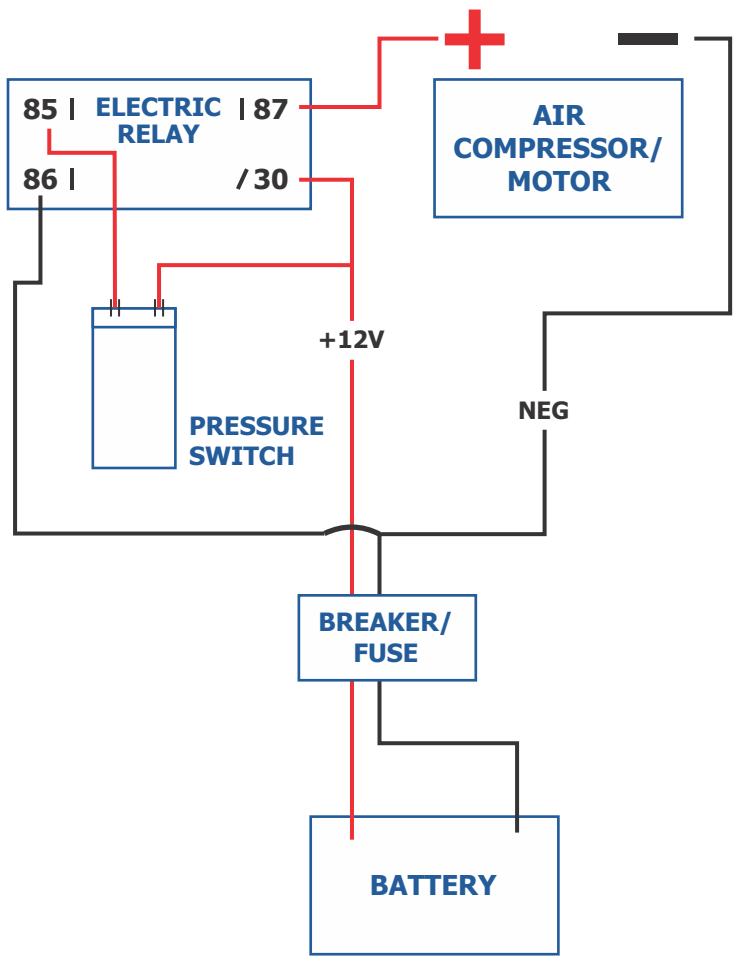
EZ-MOUNT Bracket

No Drilling Required!

Our heavy gauge, powder coated steel bracket mounts directly to the bench seat using existing holes and forms a sturdy hold for controls. The "Ram Mounts" have built-in vibration movement.



ACK ELECTRIC SCHEMATIC



EZ-ALIGN Pneumatic Shift Cylinder



Application: Parker A20
Part No. ASC-A20

SAFETY
Anti-Binding
Technology

PERFORMANCE

Excellent Mating &
Proportional Control of the
Hydraulic Valve

| Pneumatic Feathering Shift Cylinder Applications | | |
|--|--------------------|------------|
| MFG. | APPLICATION | PART No. |
| PARKER | A20 | ASC-A20 |
| | V20 | ASC-V20 |
| REXROTH | MP-4 | 3059-99-01 |
| PRINCE | 20 SERIES | 3013-99-06 |
| | 5100 MONOBLOCK | 3024-99-03 |
| HUSCO | 5000 SERIES | 3038-99-03 |
| | 6000 SERIES - 3.75 | 3037-99-03 |

SUPER-DUTY ACK SYSTEM

H = Hoist P = Plow J = Joystick S = Side Dump

ACK-HP-A20

| PART No. | QTY. | PART |
|---------------|------|--|
| ACK | 1 | AIR COMPRESSOR KIT |
| 1264-99-01 | 1 | NEUTRAL LOCK VALVE |
| 1261-2B-32 | 1 | 2-BANK MINI VALVE |
| DAK532FK | 3 | COLOR CODED TUBING and FITTINGS KIT - 5/32" |
| DAK250FK | 1 | TUBING & FITTINGS - .250 |
| RAM MOUNTS | 1 | RAM MOUNTS |
| SEATBASEPLATE | 1 | SEAT BASE PLATE |
| ASC-A20 | 3 | SHIFT CYLINDER - A20 |
| ASC-V20 | 3 | SHIFT CYLINDER - V20 |

ACK-H-A20

| PART No. | QTY. | PART |
|---------------|------|--|
| ACK | 1 | AIR COMPRESSOR KIT |
| 1264-99-01 | 1 | NEUTRAL LOCK VALVE |
| DAK532FK | 1 | COLOR CODED TUBING and FITTINGS KIT - 5/32" |
| DAK250FK | 1 | TUBING & FITTINGS - .250 |
| RAM MOUNTS | 1 | RAM MOUNTS |
| SEATBASEPLATE | 1 | SEAT BASE PLATE |
| ASC-A20 | 1 | SHIFT CYLINDER - A20 |
| ASC-V20 | 1 | SHIFT CYLINDER - V20 |

ACK-HPS-A20

| PART No. | QTY. | PART |
|---------------|------|--|
| ACK | 1 | AIR COMPRESSOR KIT |
| 1264-99-01 | 1 | NEUTRAL LOCK VALVE |
| 1261-3B-32 | 1 | 3-BANK MINI VALVE |
| DAK532FK | 4 | COLOR CODED TUBING and FITTINGS KIT - 5/32" |
| DAK250FK | 1 | TUBING & FITTINGS - .250 |
| RAM MOUNTS | 1 | RAM MOUNTS |
| SEATBASEPLATE | 1 | SEAT BASE PLATE |
| ASC-A20 | 4 | SHIFT CYLINDER - A20 |
| ASC-V20 | 4 | SHIFT CYLINDER - V20 |

ACK-PH-J-A20

| PART No. | QTY. | PART |
|---------------|------|--|
| ACK | 1 | AIR COMPRESSOR KIT |
| 1226-99-01 | 1 | JOYSTICK Feathering VALVE |
| 1264-99-01 | 2 | NEUTRAL LOCK VALVE |
| DAV1221SPCR | 2 | SPACER |
| DAK532FK | 4 | COLOR CODED TUBING and FITTINGS KIT - 5/32" |
| DAK250FK | 2 | TUBING & FITTINGS - .250 |
| RAM MOUNTS | 1 | RAM MOUNTS |
| SEATBASEPLATE | 1 | SEAT BASE PLATE |
| ASC-A20 | 4 | SHIFT CYLINDER - A20 |
| ASC-V20 | 4 | SHIFT CYLINDER - V20 |

Call today to customize your specific application.

**DEL
CLEAN
STYLE**

SHAKER

- *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

DD116

DEL SHAKER KIT



DD107 DEL Shaker

Recommended for
Tandem Axle and
Tri-Axle Vehicles

DIMENSIONS:

Length: 20 3/4"
Height: 7 1/4"
Width: 7 3/4"
Weight: 82 lbs.



**DD107
KIT INCLUDES:**

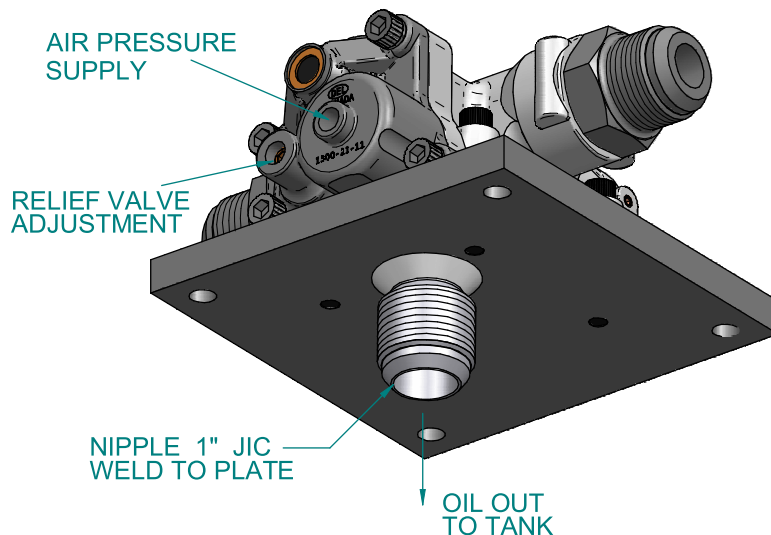
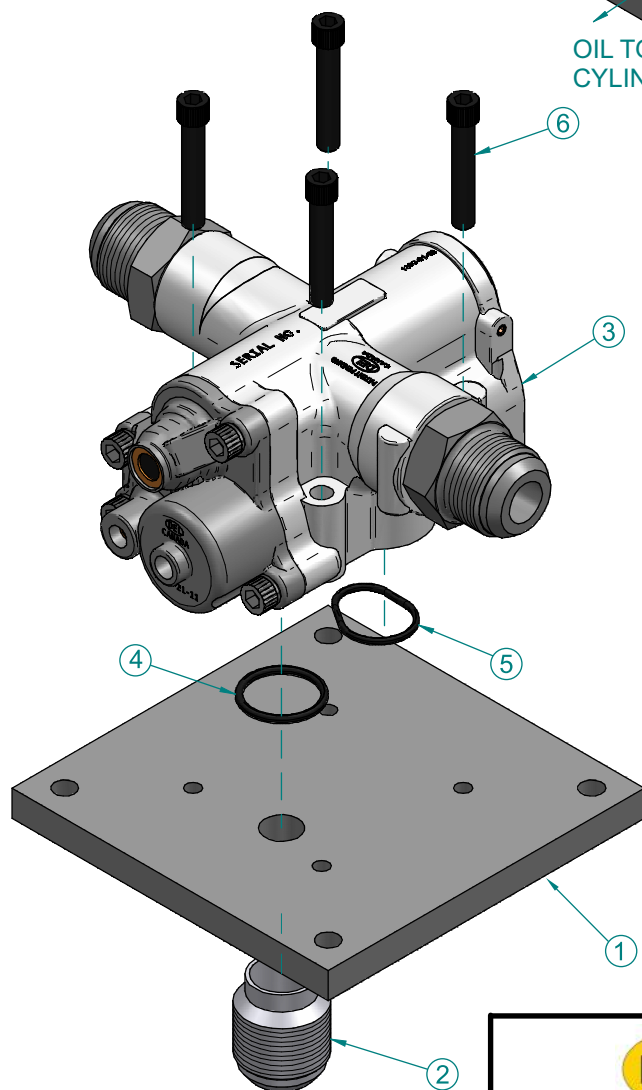
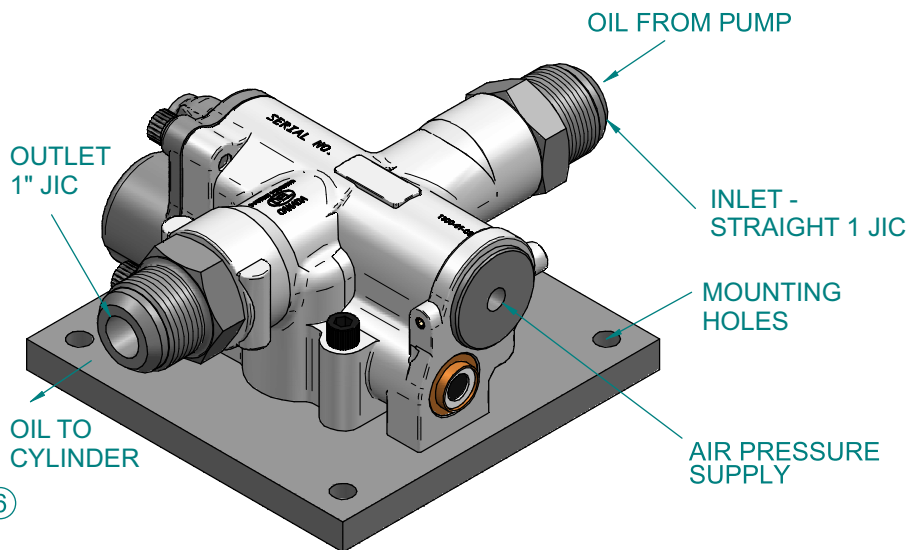
- Momentary Toggle Switch
- Electric Solenoid
- Wire Terminal Connectors
- Heavy Duty 4 ga Wire
- Fusible Link
- Warning Labels



HYDRAULIC VALVE SCHEMATIC

| # | 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 |

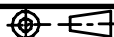
1301-99-20
HYDRAULIC VALVE F1,
C/W 1" JIC



SINCE 1945

ALL INFORMATION IN THIS DRAWING IS COPYRIGHT PROTECTED.

1301-99-20
HYDRAULIC VALVE F 1,
C/W 1" JIC P



UNITS: INCHES

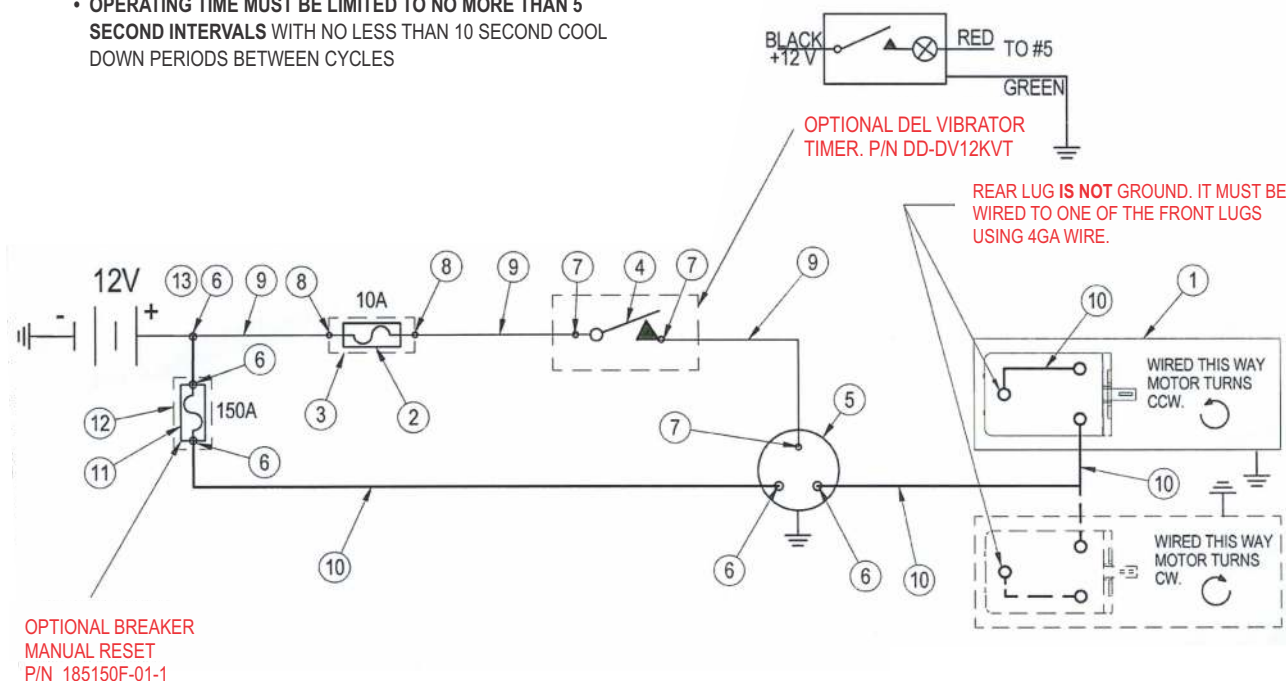
CHKD:
DRWN: O.S. Feb 22/17
REVD:

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

DEL INTERLOCK SWITCH

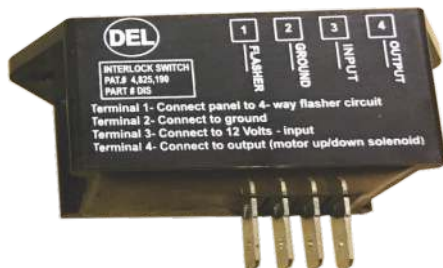
The DIS (DEL Interlock Switch) requires a pulsed input to maintain a closed connection output using factory supplied safety equipment (4-way flasher switch) as the means of security and safety on mobile equipment. If the signal is removed, the device effectively switches open. The DIS is applied to any 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.

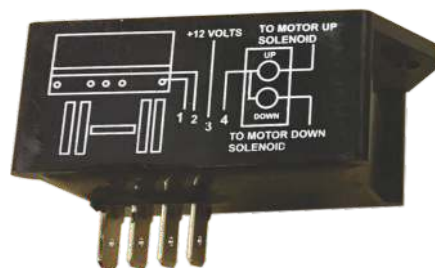
SIDE 1 VIEW

Shows connection functions readout

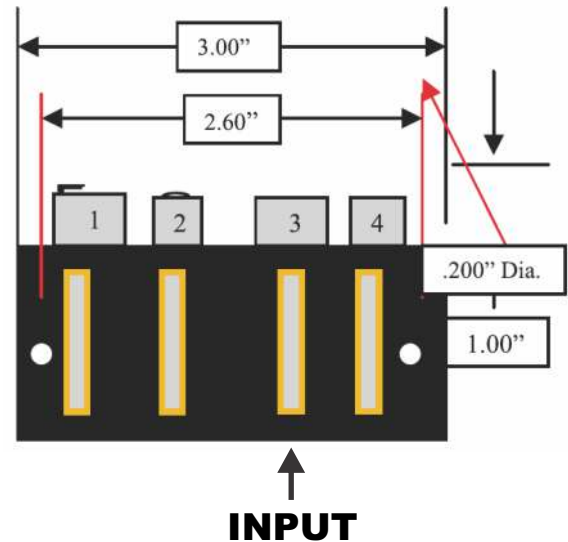


SIDE 2 VIEW

Shows connections schematic



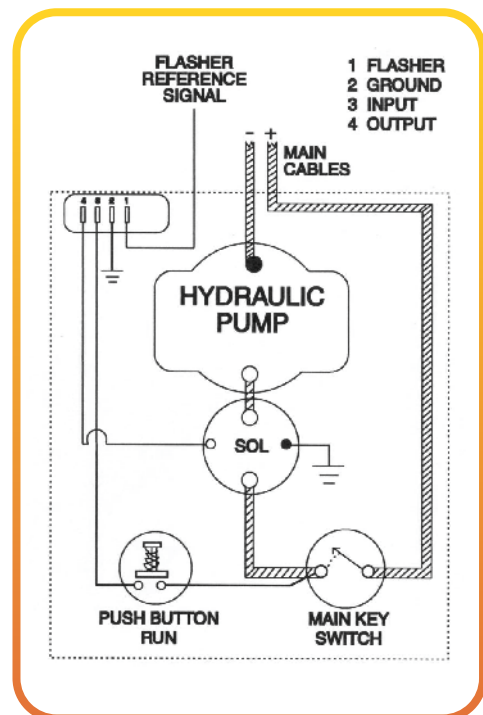
Part No.
DIS-SP



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)





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NOTES

43

BUILDING *for the* **FUTURE**

**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

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North America with PRIDE.**