

Issued: 2/7/92
Revised: 11/21/19

W A T E R O U S

WATEROUS COMPANY
SOUTH ST. PAUL, MINNESOTA

Pneumatic Shift

REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
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Index:

Description	Prior to 4/21/06	After 4/21/06
Shift Unit on Transmission	2	4
In-Cab and Operator's Panels	3	5

H1	Body	H29	Panel plate, operators panel
H2	End cap	H30	Panel plate, in cab
H3	Piston	H31	Air control valve
H4	Quad ring, 1-1/4 x 1-1/2 in.	H33	Light Bulb, 12 volt (#1819), 24 volt (#313)
H5	O-ring, 1-3/4 x 1-7/8 in.	H34	Pneumatic shift subassembly
H6	Hex hd screw, 5/16-18 x 3/4 in. with thread sealant	H38	Wire assembly, black, 25 ft 9 in.
H7	Lock washer, 5/16 in.	H39	Wire assembly, black, 18 ft
H8	Push button switch	H40	Wire assembly, black, 72 in.
H17	Wire assembly, white, 4-1/2 in.	H41	Repair kit, air control valve
H20	Indicating light, green	H42	Repair kit (includes H4, H5 and H22)
H22	Gasket (Two required, one on each side of H23)	H44	In-cab panel mounting hardware
H23	Shift switch bracket	H45	Operator's panel mounting hardware

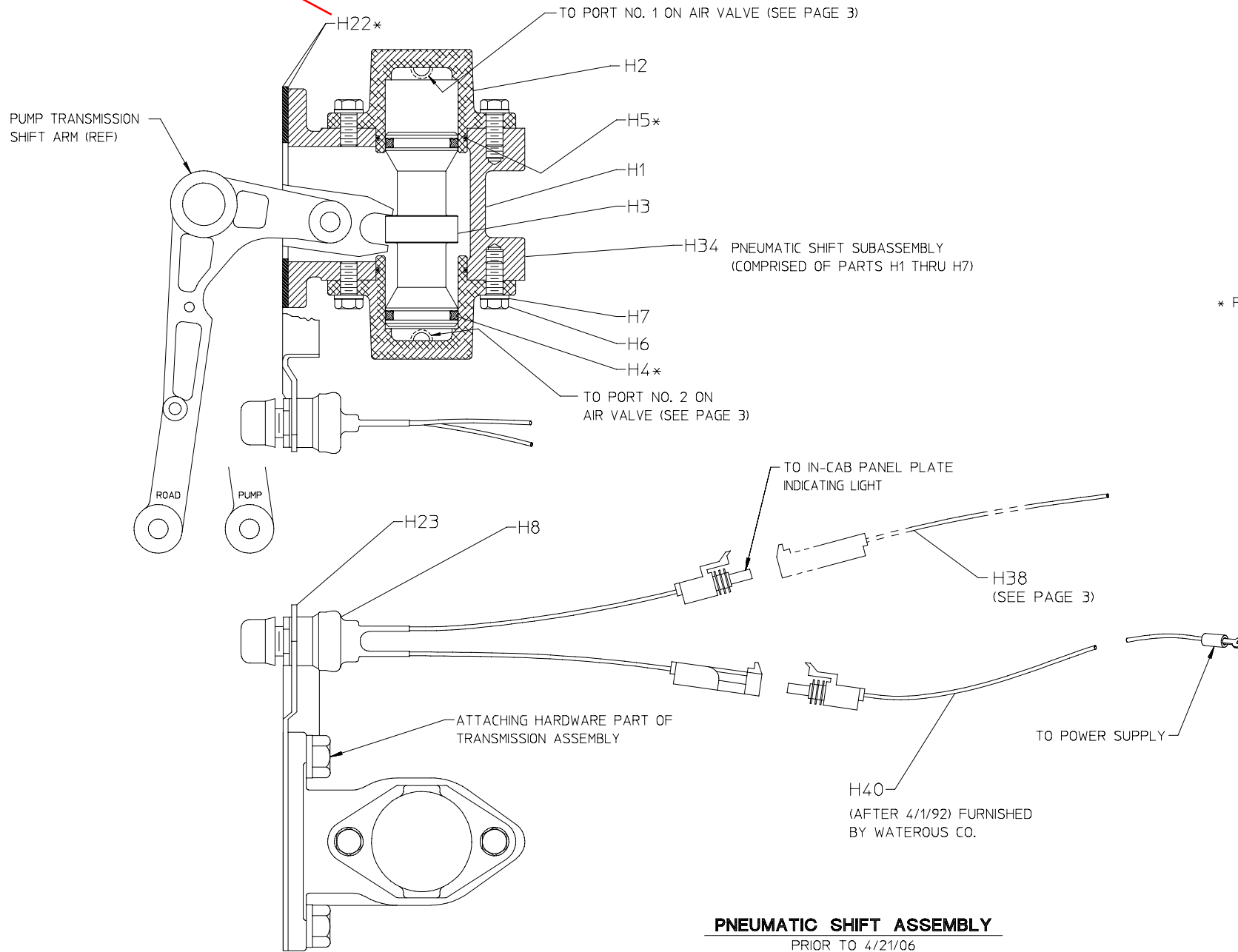
PLEASE NOTE

WHEN ORDERING PARTS PLEASE SUPPLY PUMP SERIAL NUMBER

SPL 81871

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Two Required, one on each side of H23 Bracket



REPAIR KIT

H42

* PART OF REPAIR KIT H42

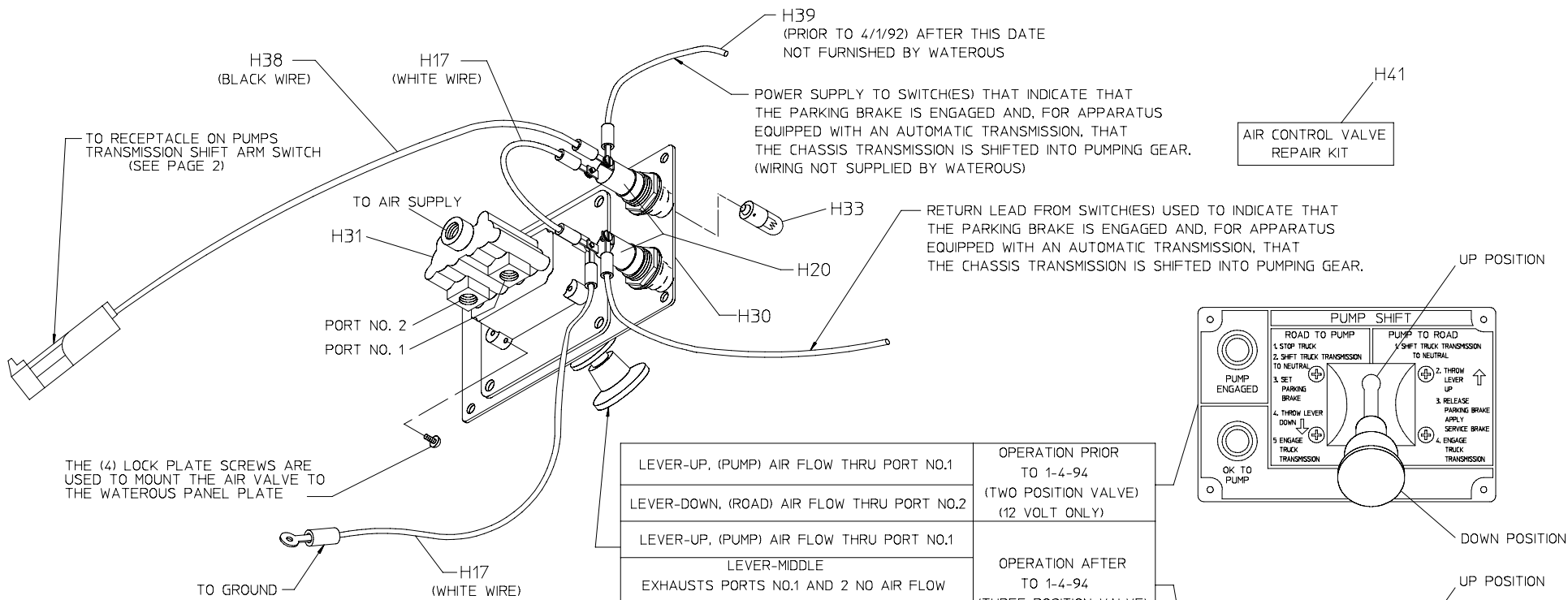
PNEUMATIC SHIFT ASSEMBLY

PRIOR TO 4/21/06

SPL 81871

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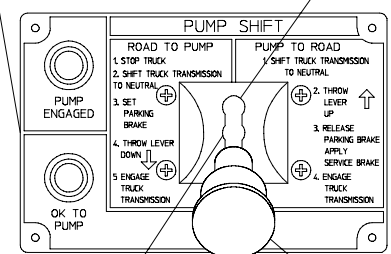
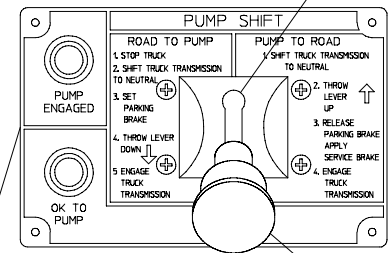
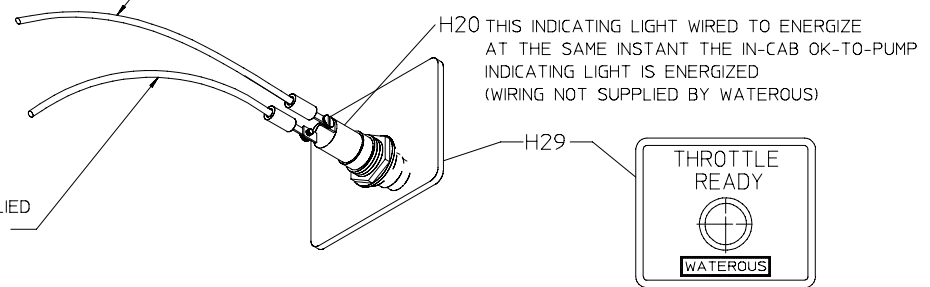
THE (4) LOCK PLATE SCREWS ARE USED TO MOUNT THE AIR VALVE TO THE WATEROUS PANEL PLATE

LEVER-UP, (PUMP) AIR FLOW THRU PORT NO.1	OPERATION PRIOR TO 1-4-94 (TWO POSITION VALVE) (12 VOLT ONLY)
LEVER-DOWN, (ROAD) AIR FLOW THRU PORT NO.2	
LEVER-UP, (PUMP) AIR FLOW THRU PORT NO.1	OPERATION AFTER TO 1-4-94 (THREE POSITION VALVE)
LEVER-MIDDLE EXHAUSTS PORTS NO.1 AND 2 NO AIR FLOW (ALLOWS FOR MANUAL MOVEMENT OF SHIFT ARM)	
LEVER-DOWN, (ROAD) AIR FLOW THRU PORT NO.2	

IN-CAB PUMP SHIFT WITH PANEL PLATE, AIR CONTROL VALVE, INDICATING LIGHTS AND WIRING

PRIOR TO 4/21/06

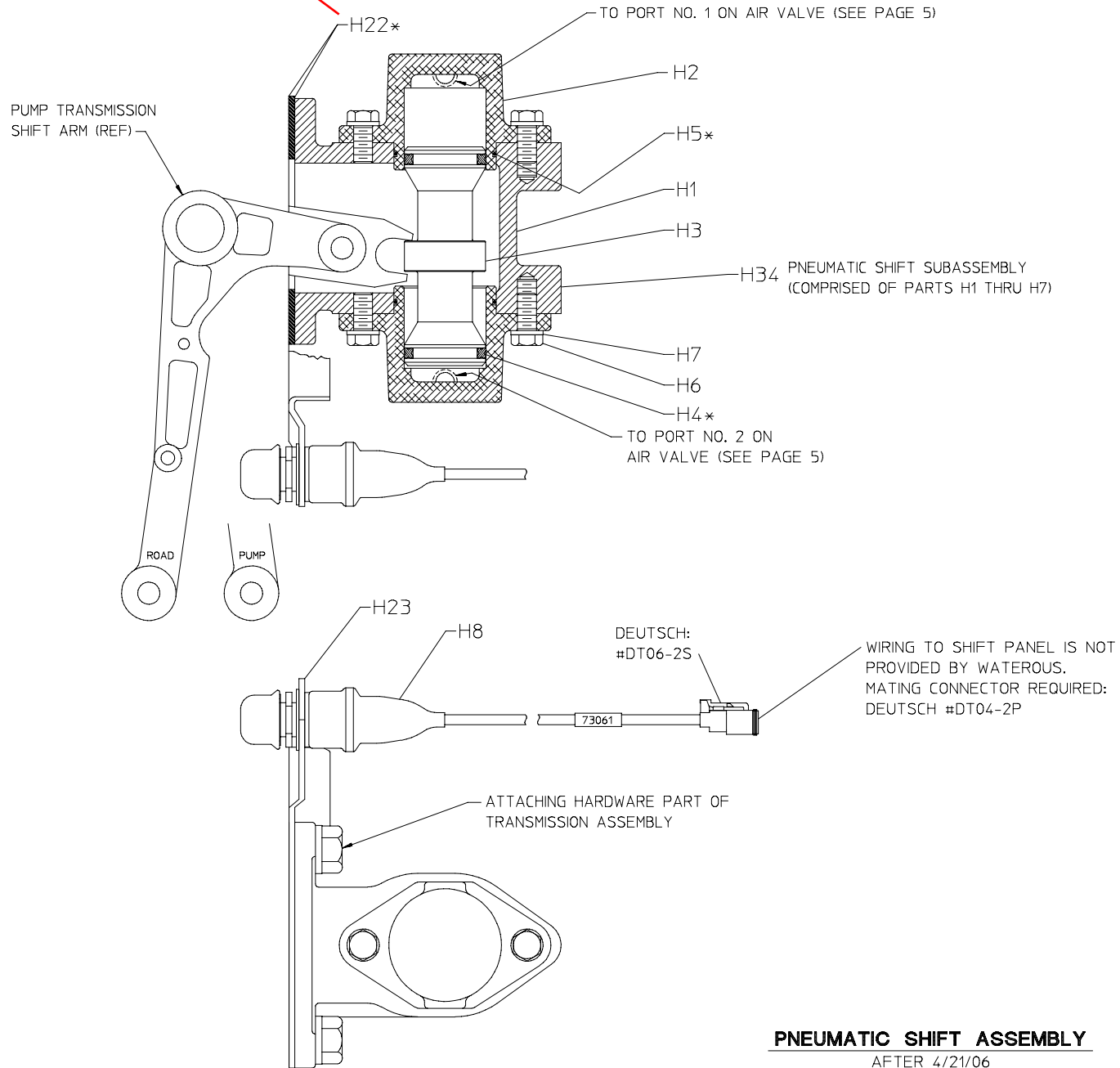
RETURN LEAD FROM THE SWITCHES USED TO INDICATE THAT THE PARKING BRAKE IS ENGAGED AND, FOR APPARATUS EQUIPPED WITH AN AUTOMATIC TRANSMISSION, THAT THE CHASSIS TRANSMISSION IS SHIFTED INTO PUMPING GEAR.



OPERATORS PANEL MOUNTED INDICATING LIGHT AND PANEL PLATE

PRIOR TO 4/21/06

Two Required, one on each side of Bracket



REPAIR KIT

H42

* PART OF REPAIR KIT H42

PNEUMATIC SHIFT ASSEMBLY

AFTER 4/21/06

WIRING TO "PUMP ENGAGED" AND "OK TO PUMP" SWITCH(ES) ARE NOT PROVIDED BY WATEROUS. MATING CONNECTOR REQUIRED: DEUTSCH #DT04-4P EACH LED DRAWS 20mA, SIZE WIRE ACCORDINGLY.

DEUTSCH:
#DT06-4S

CONTACT ARRANGEMENT
(SHOWN FROM WIRE INSERTION SIDE)



DEUTSCH CONTACT #	WIRE	FUNCTION
1	BLACK	AWG 18 TO GREEN LED "PUMP ENGAGED"
2	GREEN	AWG 18 TO GREEN LED "OK TO PUMP"
3	RED	AWG 18 FROM 12 VDC/24 VDC
4	WHITE	AWG 18 FROM 12 VDC/24 VDC

CABLE TO CABLE MALE PLUG

DEUTSCH:
#DT06-4S

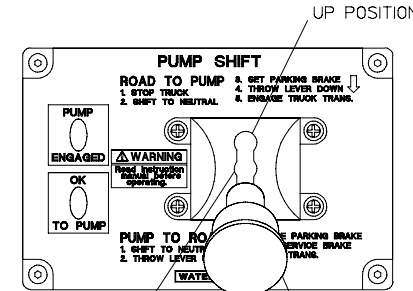
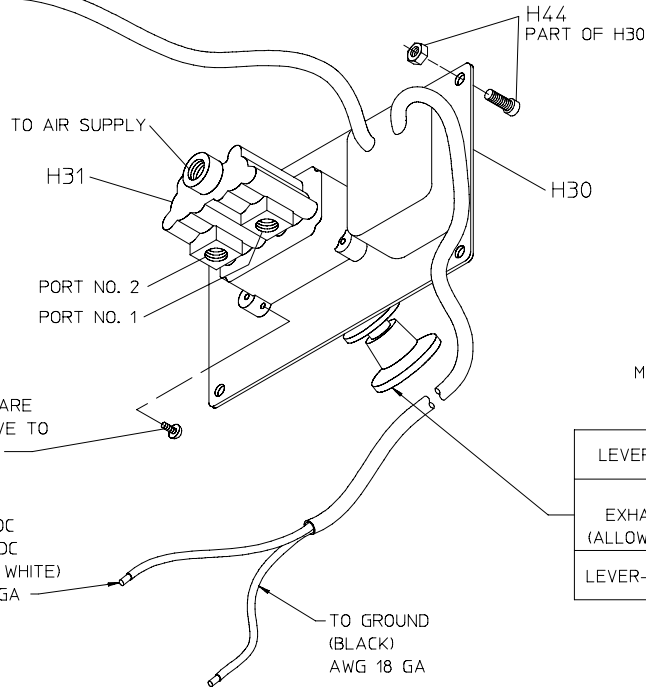
H41

AIR CONTROL VALVE
REPAIR KIT

THE (4) LOCK PLATE SCREWS ARE USED TO MOUNT THE AIR VALVE TO THE WATEROUS PANEL PLATE

TO 12 VDC
OR 24 VDC
(RED OR WHITE)
AWG 18 GA

TO GROUND
(BLACK)
AWG 18 GA



LEVER-UP, (ROAD) AIR FLOW THRU PORT NO.1
LEVER-MIDDLE
EXHAUSTS PORTS NO.1 AND 2 NO AIR FLOW
(ALLOWS FOR MANUAL MOVEMENT OF SHIFT ARM)
LEVER-DOWN, (PUMP) AIR FLOW THRU PORT NO.2

IN-CAB PUMP SHIFT WITH PANEL PLATE, AIR CONTROL VALVE, INDICATING LIGHTS AND WIRING

AFTER 4/21/06

"THROTTLE READY" CONTACT ARRANGEMENT
(SHOWN FROM WIRE INSERTION SIDE)

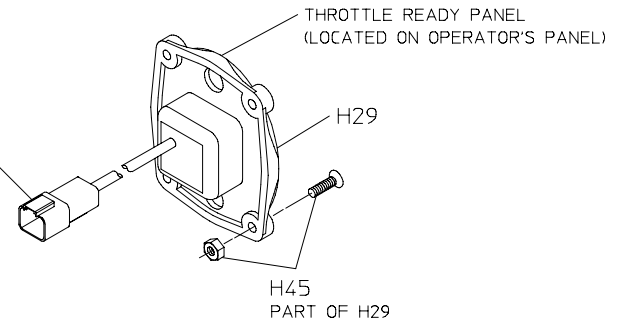


DEUTSCH CONTACT #	WIRE	FUNCTION
1	RED OR WHITE	AWG 16 FROM 12 VDC/24 VDC
2	BLACK	AWG 16 TO GROUND

CABLE TO CABLE FEMALE RECEPTACLE

DEUTSCH:
#DT04-2P

DEUTSCH:
#DT04-2P



OPERATORS PANEL MOUNTED INDICATING LIGHT AND PANEL PLATE

AFTER 4/21/06