

Keep With Operator's Manual

## VALVE AND PLUMBING KIT INSTRUCTIONS 2406S LOADER CASE IH & NEW HOLLAND COMPACT CLASS I TRACTORS

| CASE IH MODEL | NEW HOLLAND MODEL                          | ROPS |
|---------------|--------------------------------------------|------|
|               | TC18 (S/N UD33666 & Higher)                | X    |
| DX21          | TC21, TC21D, TC21DA (S/N UF33357 & Higher) | X    |
| DX24          | TC24, TC24D, TC24DA                        | X    |

### TRACTOR AND VALVE KIT GENERAL INFORMATION

Valve and plumbing kit can be installed on tractor using tools ordinarily available. Valve control handle has been factory preassembled for ease of installation. Shut off the tractor engine, engage tractor brakes and completely lower three point hitch during installation.

**NOTE:** Apply sealant only to all tapered threads unless coupled with swivel adapters. When using Teflon tape, wrap tape clockwise (as viewed from end) and wrap only twice. Keep sealant away from first two threads of tapered end to prevent contamination of hydraulic fluid. Do not use sealant on O-ring or flare adapter threads.

### ATTACHING VALVE TO LOADER MOUNTING BRACKET (Figures 1 & 3)

1. Install 3/4" x 3/4" elbow fitting (9) into power beyond port of valve (1). Install adapter fittings (22), female quick couplers (15) and 1" colored bands (16) to working ports of valve (1).
2. Fasten valve mounting plate (23) to valve mounting tube (24) using 3/8 x 2-1/4" cap screws (2) and 3/8" lock nuts (5).
3. Fasten valve (1) with power beyond port to bottom and decal mounting angle (4) to valve mounting plate (23), using 5/16 x 3/4" cap screws (6) and 5/16" lock washers (7)(Figures 1 & 3).
4. Making sure surface of decal mounting plate (4) is clean and dry, remove backing from decal (20) and apply it to decal mounting plate (4).
5. Thread nut (13) onto handle (3). Attach handle (3) to valve (1). Slip boot (14) over handle and cover handle assembly. Attach ball (8) to handle.
6. Attach valve mounting tube (24) to loader right mid mounting bracket using 1/2 x 2-1/2" cap screws (28), 1/2" flat washers (11) and 1/2" lock nuts (29).



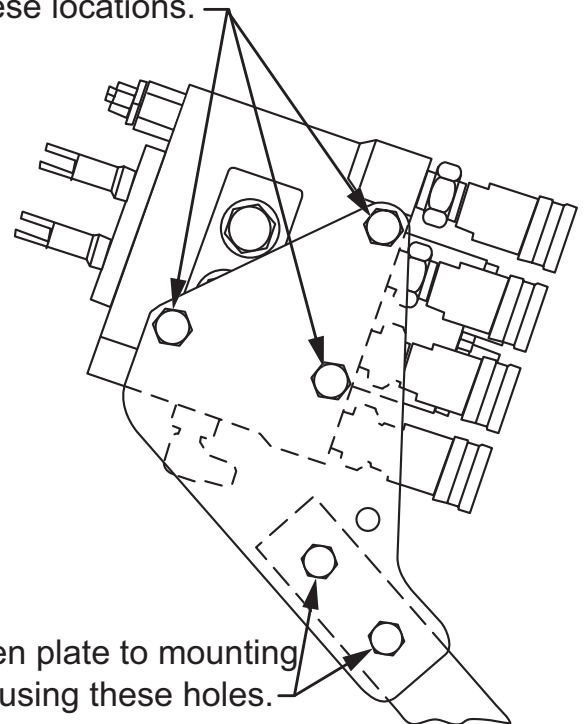
**WARNING:** Escaping hydraulic fluid under pressure can penetrate skin causing serious injury.

- DO NOT use your hands to check for leaks. Use a piece of cardboard or paper to search for leaks.
- Stop engine and relieve pressure before connecting or disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.

If any fluid is injected into skin, obtain medical attention immediately or gangrene may result.

**Figure 1**

Fasten valve to plate using holes in these locations.

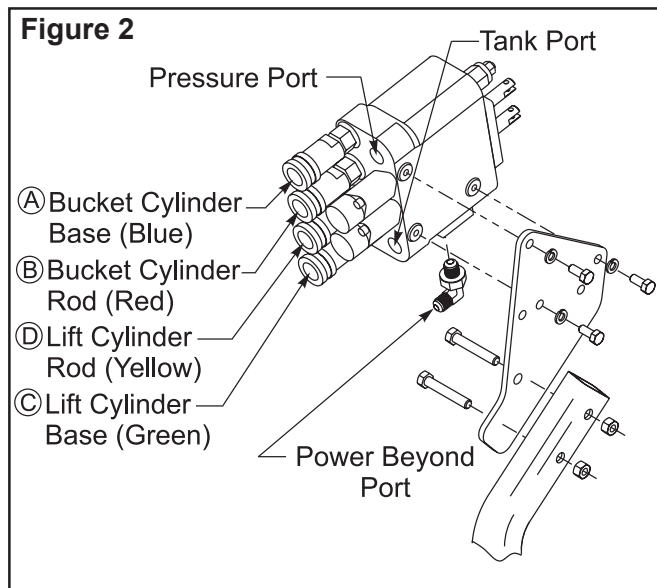


Fasten plate to mounting tube using these holes.

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### PLUMBING CONTROL VALVE TO TRACTOR HYDRAULICS (Figures 2 & 4)

1. Remove plugs from ports of tractor hydraulic manifold and install 3/8-NPT x 3/4 JIC x 45° elbow fittings (26) into all three ports. Install 3/4 JIC x 3/4 JIC x 45° elbow fittings (27) onto 45° elbow fittings (26) in tractor hydraulic ports.
2. Attach hoses (10 & 12) to loader control valve (1) (see figure 3). Route hoses (10 & 12) along valve mounting tube (24) to side of tractor and along engine block to tractor manifold. Connect pressure hose (10) (from valve port marked "IN") to 45° elbow fitting (27) in upper rear port of tractor hydraulic manifold. Connect power beyond hose (12) (from valve port marked "PB") to 45° elbow fitting (27) at lower middle port and connect tank hose (10) (from valve port marked "OUT") to 45° elbow fitting (27) at front port of tractor hydraulic manifold.
3. Secure hoses (10 & 12) to valve mounting tube (24) and to tractor oil lines at tractor hydraulic pump using adjustable tie straps (21).



### PLUMBING LOADER TO CONTROL VALVE

1. Install 1/4 x 60" hoses (17) onto boom oil line tubes. Install and tighten hose fittings one at a time from the bottom up.
2. Install 5/8" spiral bands (18) onto free ends of hoses (17) to match bands (16) on female quick couplers (15). Slide nylon sleeve (25) over hoses (17) and install male quick couplers (19) onto free ends.
3. Connect hoses from upper two boom oil lines to lower quick couplers and connect hoses from lower two boom oil lines to upper two quick couplers. Wrap plastic tie straps (21) around hoses in sleeve and around loader right side frame channel to secure hoses.
4. After all plumbing has been completed and all parts are secure, turn the control screw on the tractor hydraulic outlet counterclockwise to "S" to supply hydraulic fluid to the loader control valve. Start the tractor engine and slowly cycle the lift and bucket cylinders several times to purge any air from the hydraulic system, then retract cylinders and shut off tractor engine. Add additional tractor hydraulic fluid as specified in the tractor operator's manual to bring the fluid level up to full.

**NOTE:** When cycling loader, operate loader according to operation decal (20) on valve box. If direction of control lever is wrong, or loader will not lower, recheck connections shown.



**WARNING:** Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin causing serious personal injury. If injured by escaping hydraulic fluid, obtain medical treatment immediately.

## PRINCE LVR VALVE SERVICE

Following is an outline procedure for disassembling and reassembling valve.



**WARNING:** *The valve has a factory pre-set valve relief setting. Tampering with this setting can cause serious injury to operator and damage to tractor or loader. Unauthorized adjustments or service to valve relief will VOID WARRANTY of both loader and tractor. If adjustments or service to valve relief are required during warranty period, an authorized service department must be consulted for authorization.*

### VALVE DISASSEMBLY (Figure 5)

**NOTE:** *Mark or tag all parts so they are reinstalled in their proper positions.*

1. Slide boot (6) to top of handle (34). Remove hex head cap screws (36) from rod ends (9 & 10). Remove handle with boot and adapter plate (8). Remove nuts (28 & 31) from spool stud (7) and rod end assemblies (10). Remove spool stud (7) and rod end assemblies (10) from valve.

**NOTE:** *Spool adapters (33) are factory assembled. Removal from spools is not necessary. If replacing a damaged adapter, clean threads with loctite primer and install using loctite 262.*

2. Remove hex head cap screws (13) and end caps (14) from both spools. Remove detent sleeve (12) from regen spool. Remove steel balls (20), poppet (21), and poppet spring (19) from detent retainer (24). Remove retaining flat (15) and detent spacer (16) from regen spool.
3. Secure handle end of regen spool. Using a rod through retainer ball holes, remove detent retainer (24) from regen spool.

**NOTE:** *Detent retainers (18 & 24) are installed on spools using Loctite 222 or equivalent. If spool adapter comes loose instead of detent retainer, pull spool completely out of valve and secure spool using vice grips on land section of spool not machined for valve bore.*

4. Remove washer (17), centering spring (26), and stop cup (23) from regen spool.
5. Holding in on float detent sleeve (22), push in float spool from handle end and remove steel balls (20) from float detent retainer (18). Remove float detent sleeve (22), poppet (21), poppet spring (19), retaining flat (15) and spacer (16) from float spool.

6. Secure handle end of float spool. Using a rod through retainer ball holes, remove detent retainer (18) from float spool.

**NOTE:** *Detent retainers (18 & 24) are installed on spools using Loctite 222 or equivalent. If spool adapter comes loose instead of detent retainer, pull spool completely out of valve and secure spool using vice grips on land section of spool not machined for valve bore.*

Remove washer (17), centering spring (26) and stop cup (23) from float spool.

7. Push spools in from handle end until rear spool seals (1) are exposed. Using wire hook and screwdriver remove rear spool seals. Push spools in from the rear until front spool seals (1) are exposed. Using wire hook and screwdriver remove front spool seals.
8. Clean all parts, including valve body, in suitable cleaning solvent. After cleaning parts with solvent, use air pressure to blow any dirt or excess solvent from all parts including inside of valve body.

### VALVE REASSEMBLY

1. Examine all parts for wear and damage and replace if necessary.
2. Lubricate all O-rings and spools with oil to prevent damage when assembling.
3. Lubricate all detent and spring centering parts with a light coat of grease before assembling.
4. Reassemble all parts in reverse order of disassembly.

**NOTE:** *Use Loctite 222 or equivalent when installing detent retainers (18 & 24).*

### RELIEF VALVE, LOAD CHECK PLUGS and POWER BEYOND SLEEVE

**NOTE:** *Relief valve (3), load check plugs (27) and power beyond sleeve (2) may be removed separately to clean inspect or replace parts without removing valve spools.*

**NOTE:** *If repairing or replacing relief valve (3), torque larger hex nut (relief body) to 20-25 ft-lbs.*

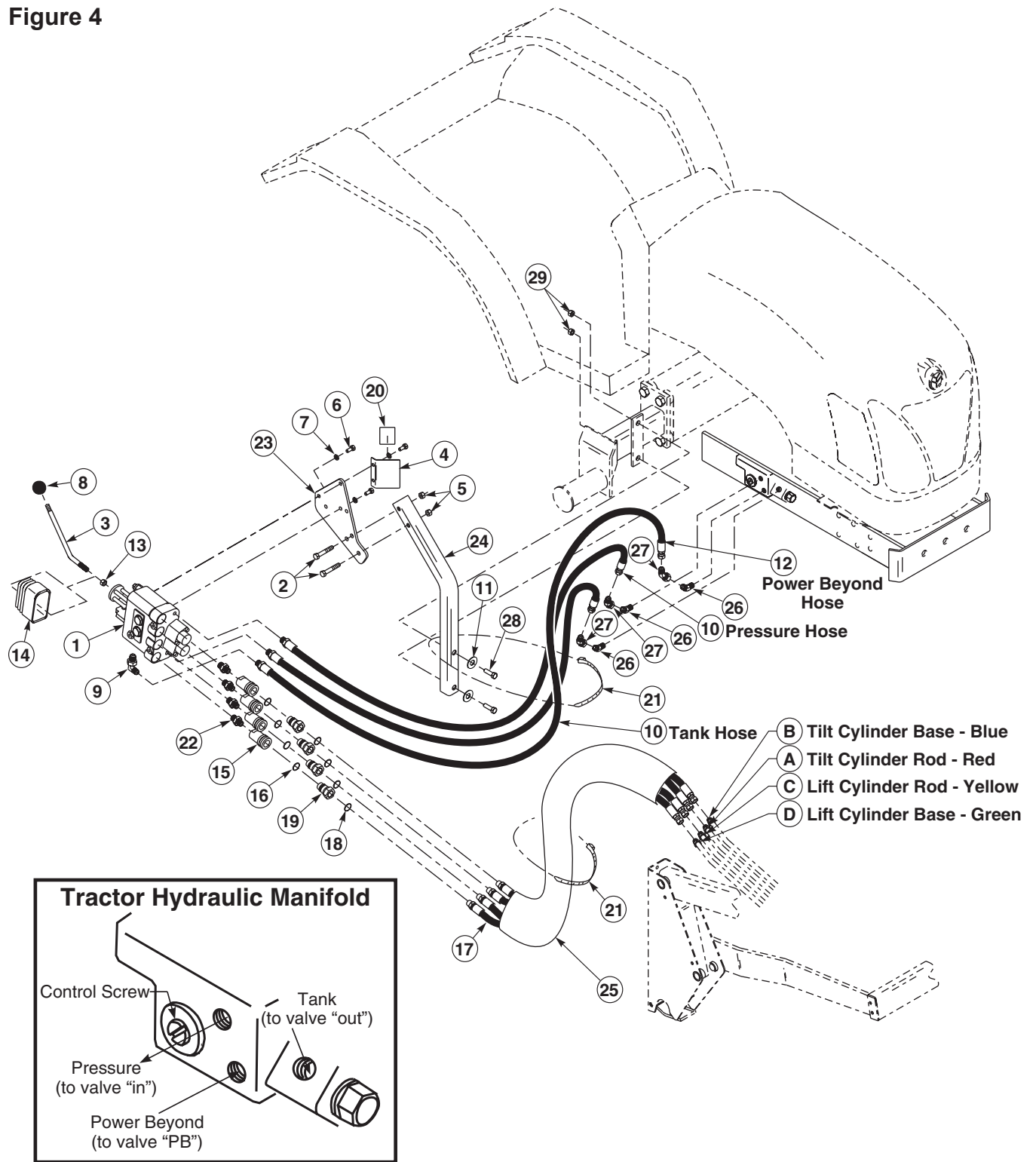
### REPLACING HANDLE PARTS

If replacing damaged handle parts, clean threads with loctite primer and install using loctite 242. Torque parts as shown in Figure 5.

**2-7136****PARTS LIST — VALVE AND PLUMBING KIT**

| Item | Part No. | Description                                                     | QTY. |
|------|----------|-----------------------------------------------------------------|------|
| 1    | 53463    | VALVE, Prince LVR (2000 PSI)                                    | 1    |
| 2    | 41838-19 | SCREW, Cap, 3/8-16 x 2-1/4"                                     | 2    |
| 3    | 43517    | HANDLE, Valve, Standard                                         | 1    |
| 4    | 43451    | ANGLE, Decal Mounting                                           | 1    |
| 5    | 41840-3  | NUT, Lock, 3/8-16                                               | 2    |
| 6    | 41838-26 | SCREW, Cap, 5/16-18 x 3/4"                                      | 3    |
| 7    | 41837-2  | WASHER, Lock, 5/16                                              | 3    |
| 8    | 38902    | BALL, Valve Handle                                              | 1    |
| 9    | 32845-7  | FITTING, Elbow, 3/4-16 JIC x 3/4-16 O-ring, 90°                 | 1    |
| 10   | 44269-7  | HOSE, 3/8 X 36" (Pressure & Tank)                               | 2    |
| 11   | 42502-10 | WASHER, Flat, 1/2"                                              | 2    |
| 12   | 36844-12 | HOSE, 3/8 x 38" (Power Beyond)                                  | 1    |
| 13   | 41836-14 | NUT, Hex, 7/16-20                                               | 1    |
| 14   | 43635    | BOOT                                                            | 1    |
| 15   | 6147-4   | COUPLER, Female                                                 | 4    |
| 16   | 36240-9  | SPIRAL BAND, Plastic, Blue, 1"                                  | 1    |
|      | 36240-10 | SPIRAL BAND, Plastic, Red, 1"                                   | 1    |
|      | 36240-11 | SPIRAL BAND, Plastic, Yellow, 1"                                | 1    |
|      | 36240-12 | SPIRAL BAND, Plastic, Green, 1"                                 | 1    |
| 17   | 36251-3  | HOSE, 1/4 x 60"                                                 | 4    |
| 18   | 36240-5  | SPIRAL BAND, Plastic, Blue, 5/8"                                | 1    |
|      | 36240-6  | SPIRAL BAND, Plastic, Red, 5/8"                                 | 1    |
|      | 36240-7  | SPIRAL BAND, Plastic, Yellow, 5/8"                              | 1    |
|      | 36240-8  | SPIRAL BAND, Plastic, Green, 5/8"                               | 1    |
| 19   | 6137-4   | COUPLER, Male                                                   | 4    |
| 20   | 43453    | DECAL, Single Handle Control                                    | 1    |
| 21   | 8137-3   | STRAP, Adjustable                                               | 3    |
| 22   | 39280-7  | FITTING, Adapter, 3/4-16 O-ring x 3/8 NPT                       | 4    |
| 23   | 43450    | PLATE, Valve Mounting                                           | 1    |
| 24   | 50206    | TUBE, Valve Mounting                                            | 1    |
| 25   | 34853-11 | SLEEVE, Nylon, 66"                                              | 1    |
| 26   | 40252-2  | FITTING, Elbow, 3/8 NPT Male x 3/4-16 JIC Male, 45°             | 3    |
| 27   | 38226-2  | FITTING, Elbow, 3/4-16 JIC Female Swivel x 3/4-16 JIC Male, 45° | 3    |
| 28   | 41838-25 | SCREW, Cap, 1/2-13 x 2-1/2"                                     | 2    |
| 29   | 41840-5  | NUT, Lock, 1/2-13                                               | 2    |

Figure 4



**2-7136**

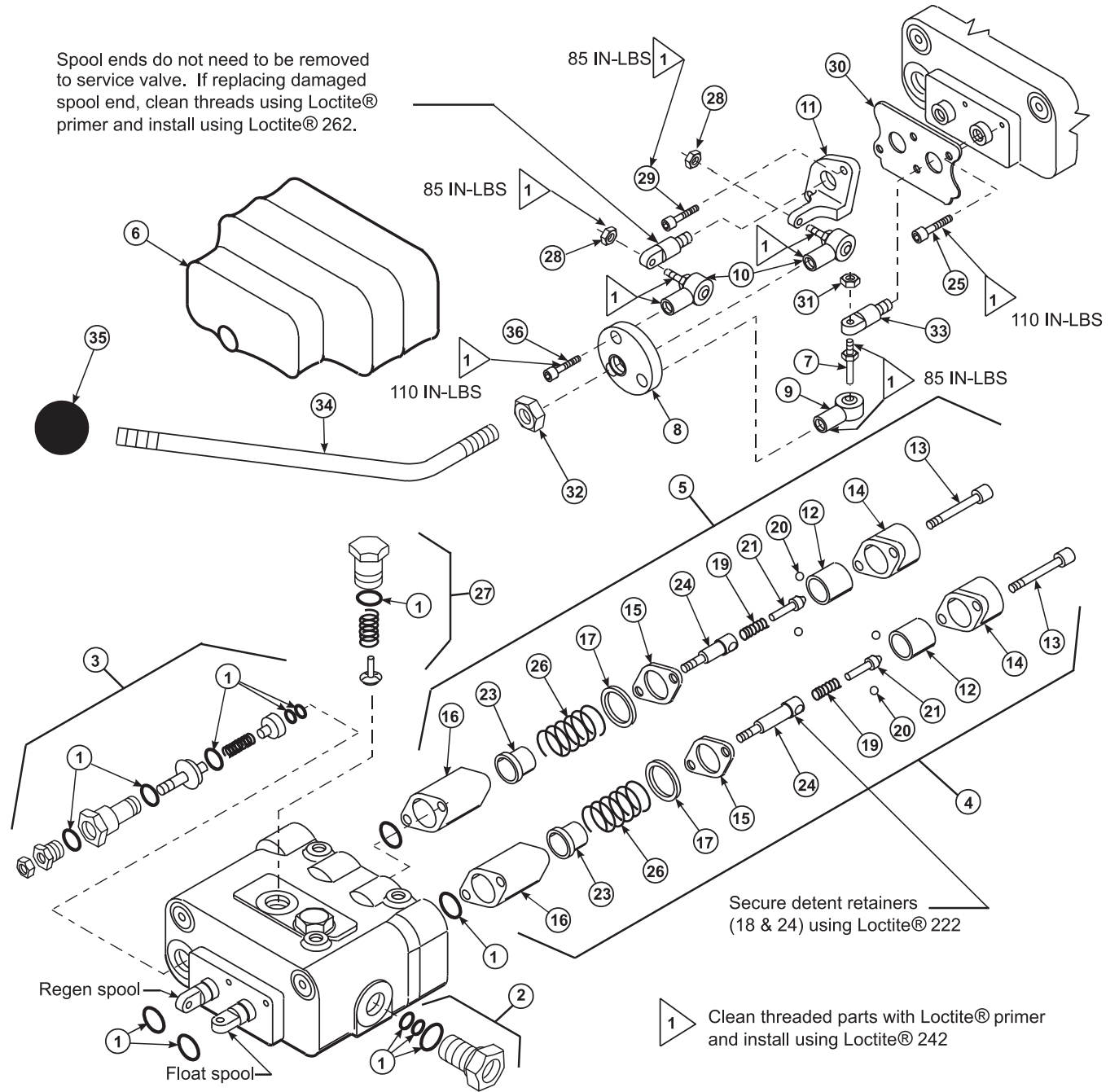
**PARTS LIST – PRINCE LVR VALVE**

| <b>Item</b> | <b>Part No.</b> | <b>Description</b>                                                                                      | <b>Qty.</b> |
|-------------|-----------------|---------------------------------------------------------------------------------------------------------|-------------|
| 1           | 43633           | SEAL KIT                                                                                                | 1           |
| 2           | 43636           | POWER BEYOND SLEEVE                                                                                     | 1           |
| 3           | 43637-3         | RELIEF VALVE (2000 PSI)                                                                                 | 1           |
| 4           | 43638           | FLOAT KIT, (Includes 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 26)                                | 1           |
| 5           | 43639           | REGEN KIT, (Includes items 12, 13, 14, 15, 16, 17, 19, 20, 21, 24, and 26)                              | 1           |
| 6           | 43635           | BOOT, Rubber, Valve Handle                                                                              | 1           |
| 7           | 51076           | STUD, Spool                                                                                             | 1           |
| 8           | 51078           | ADAPTER PLATE                                                                                           | 1           |
| 9           | 38900-4         | ROD END                                                                                                 | 1           |
| 10          | 51075           | ROD END, Assembly                                                                                       | 2           |
| 11          | 51079           | CLEVIS                                                                                                  | 1           |
| 14          | 44476-2         | END CAP (Manufacturer's part number (HC-V-AA26) stamped on end cap identifies valve and relief setting) | 2           |
| 25          | 44743-5         | SCREW, Cap, Socket Head, 1/4-20 x 1/2"                                                                  | 2           |
| 26          | 44460           | PLUG, Load Check                                                                                        | 2           |
| 28          | 41836-2         | NUT, Hex, 5/16"                                                                                         | 3           |
| 29          | 44743-3         | SCREW, Cap, Socket Head, 1/4-20 x 7/8"                                                                  | 2           |
| 30          | 51080           | PLATE                                                                                                   | 1           |
| 31          | 51081           | WASHER, Shim, 5/16"                                                                                     | 1           |
| 32          | G271506         | NUT, Hex, 7/16-20                                                                                       | 1           |
| 33          | 51077           | END, Spool                                                                                              | 2           |
| 34          | 43517           | HANDLE, Valve, Standard                                                                                 | 1           |
| 35          | 38902           | BALL, Handle                                                                                            | 1           |
| 36          | 44743-4         | SCREW, Cap, Socket Head, 5/16-24 x 3/4"                                                                 | 3           |
| 37          | G120383         | WASHER, Lock, 7/16"                                                                                     | 1           |

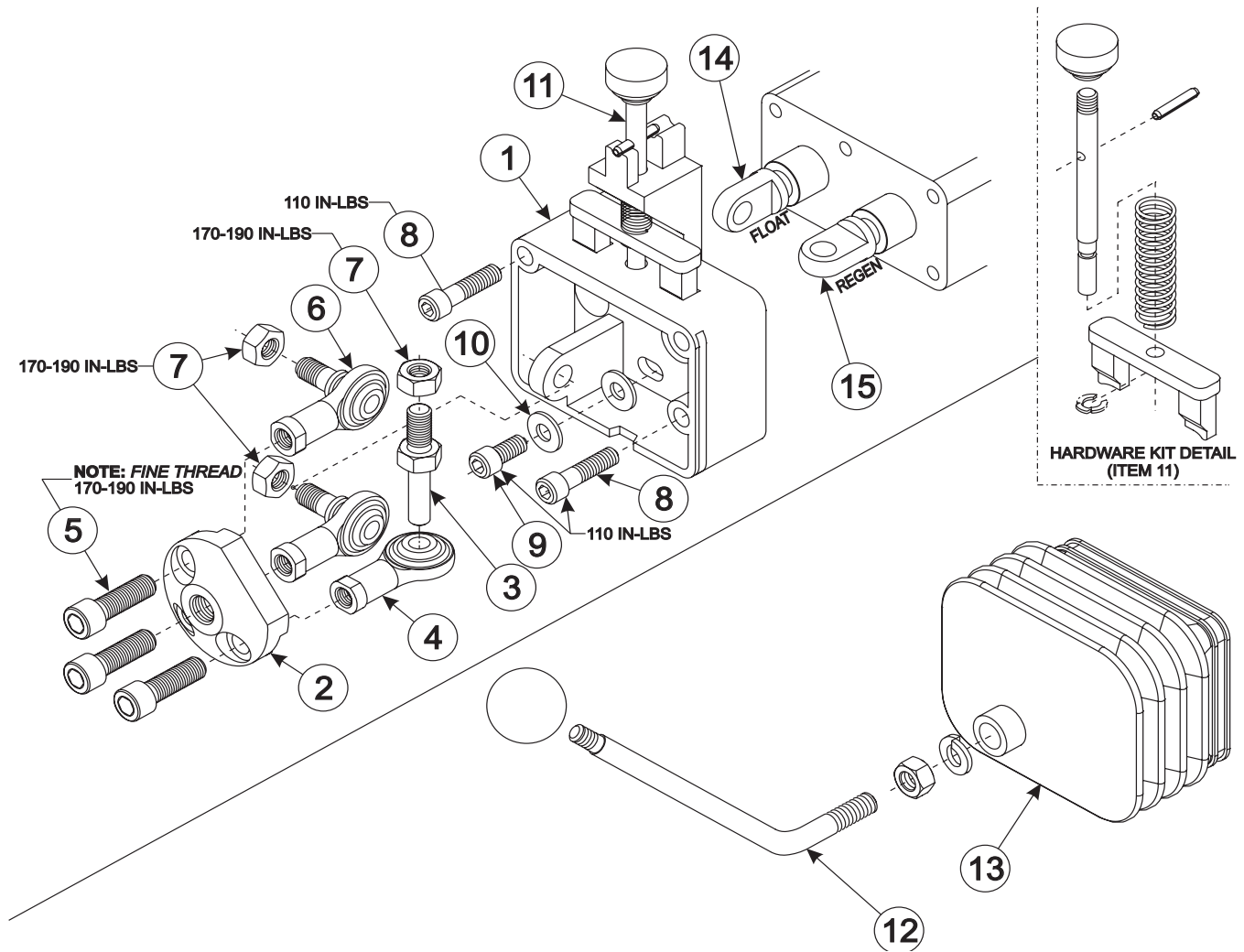
**NOTE:** Individual items not listed in repair parts listing are not available separately.

Figure 5

Spool ends do not need to be removed to service valve. If replacing damaged spool end, clean threads using Loctite® primer and install using Loctite® 262.



**Figure 6**  
**VALVE EQUIPPED WITH LOCKOUT FEATURE**



**PARTS LIST - JOYSTICK SUB-ASSY WITH DUAL SPOOL LOCK**

| Item | Part No. | Description                        | Qty. |
|------|----------|------------------------------------|------|
| 1    | *        | CLEVIS, Spool Lock                 | 1    |
| 2    | *        | PLATE, Adapter                     | 1    |
| 3    | 55821    | STUD, Spool                        | 1    |
| 4    | 55822    | END, Rod                           | 1    |
| 5    | *        | SCREW, Cap                         | 3    |
| 6    | 55823    | ASSY, Rod End                      | 2    |
| 7    | *        | NUT, Hex                           | 3    |
| 8    | *        | SCREW, Cap                         | 2    |
| 9    | *        | SCREW, Cap                         | 1    |
| 10   | *        | WASHER, Flat                       | 1    |
| 11   | 55824    | KIT, Spool Lock Hardware           | 1    |
| 12   | 56004    | KIT, Bent Handle                   | 1    |
| 13   | 55826    | KIT, Boot/Cable Tie                | 1    |
| 14   | 55917    | ADAPTER, Float Spool               | 1    |
| 15   | 55918    | ADAPTER, Regen Spool               | 1    |
| 16   | 55827    | KIT, Sub-Assy, Includes Items 1-11 | 1    |

\* **NOTE:** Individual items not listed in repair parts listing are not available separately.  
For valve block service parts, see previous page.



## GENERAL TORQUE SPECIFICATIONS

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

### Standard American and Metric Cap Screws

| AMERICAN STANDARD CAP SCREWS |        |      |      |      |        |     |      |      |                    | METRIC CAP SCREWS |      |      |      |        |      |      |      |
|------------------------------|--------|------|------|------|--------|-----|------|------|--------------------|-------------------|------|------|------|--------|------|------|------|
| SAE Grade                    | 5      |      |      |      | 8      |     |      |      | Metric Class       | 8.8               |      |      |      | 10.9   |      |      |      |
| Typ. Head Markings           |        |      |      |      |        |     |      |      | Typ. Head Markings |                   |      |      |      |        |      |      |      |
| Cap Screw                    | TORQUE |      |      |      | TORQUE |     |      |      | Cap Screw          | TORQUE            |      |      |      | TORQUE |      |      |      |
| Size                         | FT-LBS |      | N-m  |      | FT-LBS |     | N-m  |      | Size               | FT-LBS            |      | N-m  |      | FT-LBS |      | N-m  |      |
| Inches                       | MIN    | MAX  | MIN  | MAX  | MIN    | MAX | MIN  | MAX  | Millimeters        | MIN               | MAX  | MIN  | MAX  | MIN    | MAX  | MIN  | MAX  |
| 1/4 - 20                     | 6.25   | 7.25 | 8.5  | 10   | 8.25   | 9.5 | 11   | 13   | M6 x 1.00          | 6                 | 8    | 8    | 11   | 9      | 11   | 12   | 15   |
| 1/4 - 28                     | 8      | 9    | 11   | 12   | 10.5   | 12  | 14   | 16   | M8 x 1.25          | 16                | 20   | 21.5 | 27   | 23     | 27   | 31   | 36.5 |
| 5/16 - 18                    | 14     | 15   | 19   | 20   | 18.5   | 20  | 25   | 27   | M10 x 1.50         | 29                | 35   | 39   | 47   | 42     | 52   | 57   | 70   |
| 5/16 - 24                    | 17.5   | 19   | 23   | 26   | 23     | 25  | 31   | 34   | M12 x 1.75         | 52                | 62   | 70   | 84   | 75     | 91   | 102  | 123  |
| 3/8 - 16                     | 26     | 28   | 35   | 38   | 35     | 37  | 47.5 | 50   | M14 x 2.00         | 85                | 103  | 115  | 139  | 120    | 146  | 163  | 198  |
| 3/8 - 24                     | 31     | 34   | 42   | 46   | 41     | 45  | 55.5 | 61   | M16 x 2.50         | 130               | 158  | 176  | 214  | 176    | 216  | 238  | 293  |
| 7/16 - 14                    | 41     | 45   | 55.5 | 61   | 55     | 60  | 74.5 | 81   | M18 x 2.50         | 172               | 210  | 233  | 284  | 240    | 294  | 325  | 398  |
| 7/16 - 20                    | 51     | 55   | 69   | 74.5 | 68     | 75  | 92   | 102  | M20 x 2.50         | 247               | 301  | 335  | 408  | 343    | 426  | 465  | 577  |
| 1/2 - 13                     | 65     | 72   | 88   | 97.5 | 86     | 96  | 116  | 130  | M22 x 2.50         | 332               | 404  | 450  | 547  | 472    | 576  | 639  | 780  |
| 1/2 - 20                     | 76     | 84   | 103  | 114  | 102    | 112 | 138  | 152  | M24 x 3.00         | 423               | 517  | 573  | 700  | 599    | 732  | 812  | 992  |
| 9/16 - 12                    | 95     | 105  | 129  | 142  | 127    | 140 | 172  | 190  | M27 x 3.00         | 637               | 779  | 863  | 1055 | 898    | 1098 | 1217 | 1488 |
| 9/16 - 18                    | 111    | 123  | 150  | 167  | 148    | 164 | 200  | 222  | M30 x 3.00         | 872               | 1066 | 1181 | 1444 | 1224   | 1496 | 1658 | 2027 |
| 5/8 - 11                     | 126    | 139  | 171  | 188  | 168    | 185 | 228  | 251  |                    |                   |      |      |      |        |      |      |      |
| 5/8 - 18                     | 152    | 168  | 206  | 228  | 203    | 224 | 275  | 304  |                    |                   |      |      |      |        |      |      |      |
| 3/4 - 10                     | 238    | 262  | 322  | 355  | 318    | 350 | 431  | 474  |                    |                   |      |      |      |        |      |      |      |
| 3/4 - 16                     | 274    | 305  | 371  | 409  | 365    | 402 | 495  | 544  |                    |                   |      |      |      |        |      |      |      |
| 7/8 - 9                      | 350    | 386  | 474  | 523  | 466    | 515 | 631  | 698  |                    |                   |      |      |      |        |      |      |      |
| 7/8 - 14                     | 407    | 448  | 551  | 607  | 543    | 597 | 736  | 809  |                    |                   |      |      |      |        |      |      |      |
| 1 - 8                        | 537    | 592  | 728  | 802  | 716    | 790 | 970  | 1070 |                    |                   |      |      |      |        |      |      |      |
| 1 - 14                       | 670    | 740  | 908  | 1003 | 894    | 987 | 1211 | 1337 |                    |                   |      |      |      |        |      |      |      |

**NOTE:** These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphite or moly sulphide greases or other extreme lubricants are used.

### 37° JIC Fittings

| Size | Thread Size | Assembly Torque |          | Tube Connection F. F. F. T. | Swivel Nut or Hose Connection F. F. F. T. |
|------|-------------|-----------------|----------|-----------------------------|-------------------------------------------|
|      |             | in.·lb.         | ft.·lb.  |                             |                                           |
| -4   | 7/16 - 20   | 140 ± 10        | 12 ± 1   | 2                           | 2                                         |
| -5   | 1/2 - 20    | 180 ± 15        | 15 ± 1   | 2                           | 2                                         |
| -6   | 9/16 - 18   | 250 ± 15        | 21 ± 1   | 1 1/2                       | 1 1/4                                     |
| -8   | 3/4 - 16    | 550 ± 25        | 45 ± 5   | 1 1/2                       | 1                                         |
| -12  | 1 1/16 - 12 | 1000 ± 50       | 85 ± 5   | 1 1/4                       | 1                                         |
| -16  | 1 5/16 - 12 | 1450 ± 50       | 120 ± 5  | 1                           | 1                                         |
| -20  | 1 5/8 - 12  | 2000 ± 100      | 170 ± 10 | 1                           | 1                                         |
| -24  | 1 7/8 - 12  | 2400 ± 150      | 200 ± 15 | 1                           | 1                                         |
| -32  | 2 1/2 - 12  | 3200 ± 200      | 270 ± 20 | 1                           | 1                                         |

### O-Ring Face Seal Tube/

#### Hose Swivel Nut

| Metric Tube O.D. (mm) | Dash Size | Thread Size (in.) | Swivel Nut Hex Size (in.) | Swivel Nut Torque |                     |
|-----------------------|-----------|-------------------|---------------------------|-------------------|---------------------|
|                       |           |                   |                           | N-m               | lb <sub>r</sub> ·ft |
| 5                     | -3        | --                | --                        | --                | --                  |
| 6                     | -4        | 9/16 - 18         | 11/16                     | 16                | 12                  |
| 8                     | -5        | --                | --                        | --                | --                  |
| 10                    | -6        | 11/16 - 16        | 13/16                     | 24                | 18                  |
| 12                    | -8        | 13/16 - 16        | 15/16                     | 50                | 37                  |
| 16                    | -10       | 1 - 14            | 1-1/8                     | 69                | 51                  |
| 20                    | -12       | 1-3/16 - 12       | 1-3/8                     | 102               | 75                  |
| 22                    | -14       | 1-3/16 - 12       | --                        | 102               | 75                  |
| 25                    | -16       | 1-7/16 - 12       | 1-5/8                     | 142               | 105                 |
| 32                    | -20       | 1-11/16 - 12      | 1-7/8                     | 190               | 140                 |
| 38                    | -24       | 2 - 12            | 2-1/4                     | 217               | 160                 |
| 50.8                  | -32       | --                | --                        | --                | --                  |

#### SAE O-Ring Fittings

| Size | Swivel Nut or Hose | Assembly Torque |           | F. F. F. T. |
|------|--------------------|-----------------|-----------|-------------|
|      |                    | in.·lb.         | ft.·lb.   |             |
| 2    | 5/16 - 24          | 90 ± 5          | 7.5 ± 0.5 | 1 ± .25     |
| 3    | 3/8 - 24           | 170 ± 10        | 14 ± 1    | 1 ± .25     |
| 4    | 7/16 - 20          | 220 ± 15        | 18 ± 1    | 1 ± .25     |
| 5    | 1/2 - 20           | 260 ± 15        | 22 ± 1    | 1 ± .25     |
| 6    | 9/16 - 18          | 320 ± 20        | 27 ± 2    | 1.5 ± .25   |
| 8    | 3/4 - 16           | 570 ± 25        | 48 ± 2    | 1.5 ± .25   |
| 10   | 7/8 - 14           | 1060 ± 50       | 90 ± 5    | 1.5 ± .25   |
| 12   | 1 1/16 - 12        | 1300 ± 50       | 110 ± 5   | 1.5 ± .25   |
| 14   | 1 3/16 - 12        | 1750 ± 75       | 145 ± 6   | 1.5 ± .25   |
| 16   | 1 5/16 - 12        | 1920 ± 125      | 160 ± 6   | 1.5 ± .25   |
| 20   | 1 5/8 - 12         | 2700 ± 150      | 225 ± 12  | 1.5 ± .25   |
| 24   | 1 7/8 - 12         | 3000 ± 150      | 250 ± 12  | 1.5 ± .25   |
| 32   | 2 1/2 - 12         | 3900 ± 200      | 325 ± 15  | 1.5 ± .25   |

# INSTALLATION INSTRUCTIONS