Keep With Operator's Manual

### DELUXE QUICK ATTACH DEVICE SKID STEER ATTACHMENT COMPATIBLE RHINO 2410 LOADER

Quick attach device can be installed using tools ordinarily available.

Torque all hardware to specifications listed in loader operator's manual.

Shut off the tractor engine and engage the tractor brakes during installation.

Only quick attach, skid steer compatible attachments can be used with the quick attach device. Pin on style attachments can be used on the loader, but necessitate removal of the quick attach device and relocation of the bucket level indicator.

All references to left and right used in these instructions are as they would appear to the operator standing at the rear of the unit facing forward.

# ASSEMBLING QUICK ATTACH DEVICE (Figure 1)

- 1. Quick attach device is pre-assembled at the factory.
- 2. Unband the quick attach device (1) and wood blocks.
- 3. Cut wire securing spacers (15) and discard cut wire.

## INSTALLING QUICK ATTACH DEVICE (Figures 1 & 2)



WARNING: Always use a drift and hammer made of non-sparking material (a shot-filled mallet is recommended) to install or remove pins. A steel hammer or drift could generate flying metal fragments and result in injury. Always wear safety glasses when using a hammer to remove or install pins.

- Fasten quick attach device to lower boom arms and bucket tilt cylinders using four anti-rotation pins, 3/8 x 3/4" shoulder bolts, and 3/8" lock nuts (supplied with loader). Place one loose spacer (15) between side of the rod end of the bucket tilt cylinder and inside of quick attach ear on each side. (Figure 2)
- 2. Attach bucket leveling rod indicator (supplied with loader), to outside of right ear on quick attach as shown in figure 2. Secure bucket leveling rod indicator with two 1/8 x 1" cotter pins (supplied with loader).

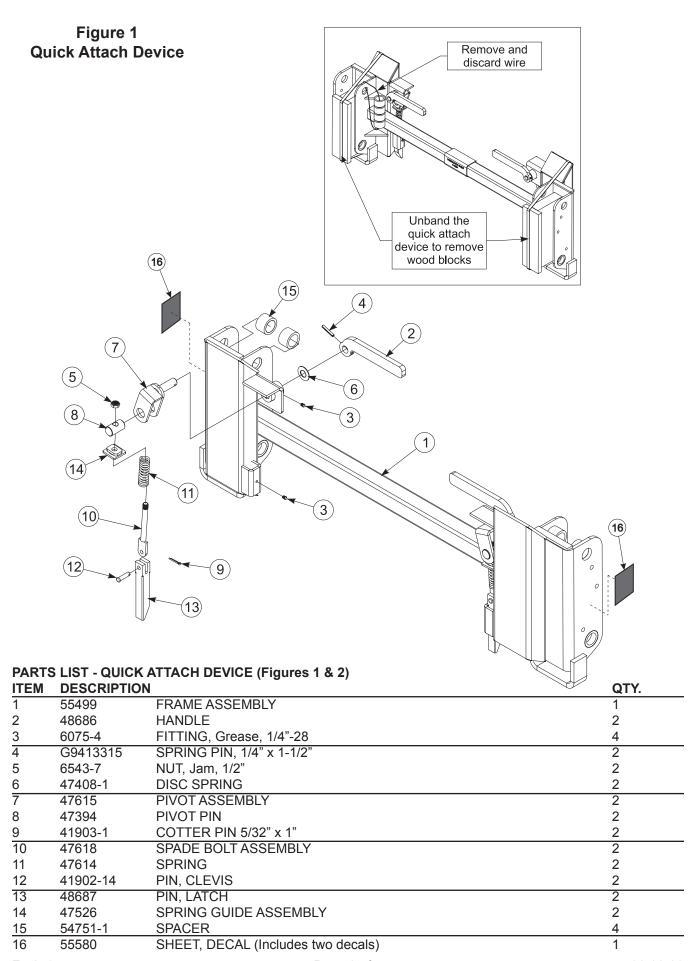
## MOUNTING ATTACHMENT TO LOADER (Figures 1 & 2)



**WARNING:** To avoid injury during installation of the loader attachment, do not allow bystanders within 10 feet of loader or attachment.

- Locate tractor and attachment on level ground. Lower boom to rest on the ground. Extend the bucket cylinders slightly, while raising the boom to provide three to five inches of ground clearance, drive the tractor ahead slowly toward the attachment, aligning the loader quick attach device as shown in figure 2.
- While driving the tractor ahead slowly to maintain contact with the attachment, activate the lift cylinders to raise the loader until the quick attach engages under the attachment lip.
- 3. Then activate bucket cylinders to retract, continuing to roll the attachment back completely.
- 4. Place tractor in neutral, set parking brake, shut off tractor. Move latch pin handles to latch (down) position (refer to figure 2).
- 5. Start tractor activate lift cylinders to raise attachment one or two feet off the ground and extend bucket cylinders to tilt attachment at a slight downward angle, so quick attachment latch pins are visible. Visually inspect the attachment mechanism to verify that the pins are engaged through the latch plate on the back of the attachment.

**NOTE:** If the attachment is not securely attached, follow the instructions for detaching it and repeat the above procedure.



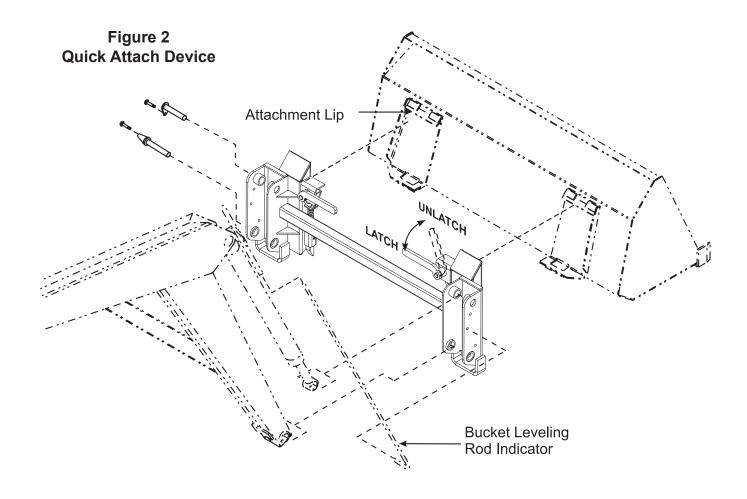
## DETACHING QUICK ATTACH DEVICE (Figures 1 & 2)



**WARNING:** To avoid injury during installation/removal of the loader attachment, do not allow bystanders within 10 feet of loader or attachment.

1. Locate tractor and loader on level ground.

- 2. Lower boom arms until the attachment is level and resting on ground.
- 3. Place tractor in neutral, set parking brake, shut off tractor engine and disengage quick attach device latch pins by moving handles to unlatch position.
- 4. Start tractor engine, release brake and extend bucket cylinders while slowly backing the tractor away from attachment, until quick attach disengages from attachment.



### **GENERAL TORQUE SPECIFICATIONS**

USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

|  | AMERICAN STANDARD CAP SCREWS |      |      |            |        |     |      |  |  | METRIC CAP SCREWS |            |        |        |      |      |      |      |  |
|--|------------------------------|------|------|------------|--------|-----|------|--|--|-------------------|------------|--------|--------|------|------|------|------|--|
| SAE<br>Grade                               | 5                            |      |      |            | 8      |     |      | Metric Class                               | 8.8  |                   |            |        | 10.9   |      |      |      |      |  |
| Typical<br>Grade ID<br>Markings<br>on Head |                              |      |      |            |        |     |      | Typical<br>Grade ID<br>Markings<br>on Head | 8.8  |                   |            | (10.9) |        |      |      |      |      |  |
| Cap<br>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   | 274               | 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  | NOTE: These values apply to fasteners as received from the supplier, dry or when lubricated with normal engine oil. They do not apply if special |                   |            |        |        |      |      |      |      |  |
| 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  | graphite or molydisulphide greases or other  |                   |            |        |        |      |      |      |      |  |
| 7/8-14                                     | 407                          | 448  | 551  | 607        | 543    | 597 | 736  | 809  | extreme pressure lubricants are used.  |                   |            |        |        |      |      |      |      |  |
| 1-8  | 537                          | 592  | 728  | 802        | 716    | 790 | 970  | 1070                                       | ,  |                   |            |        |        |      |      |      |      |  |
| 1-14                                       | 670                          | 740  | 908  | 1003       | 894    | 987 | 1211 | 1337                                       |  |                   |            |        |        |      |      |      |      |  |

# INSTALLATION INSTRUCTIONS