



**OPERATOR'S / PARTS
MANUAL**



***Auto-Load Round Bale Handler
Models***

| | | |
|----------------|----------------|----------------|
| P-6810 | P-6812 | P-6816 |
| P-6810M | P-6812M | P-6816M |



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INTRODUCTION

CONGRATULATIONS!

Thank you for choosing PRONOVOST. We are confident this equipment will meet your requirements in terms of quality, performance and reliability.

This manual was prepared to assist you in the safe operation of your new Auto-Load Round Bale Handler. It contains important information which will help you achieve excellent returns with your round bale handler for years to come.

Please read this manual completely before operating this equipment and keep it for future reference.

Before using the equipment, you or any other person who will be operating the Round Bale Handler must be familiarized with the safety recommendations. Please read carefully and be sure to understand and follow all recommendations and procedures.

In this manual, the right and left sides of the equipment are identified while standing behind the machine and facing it.

If you require additional information on your Round Bale Handler, please contact your PRONOVOST Dealer.

NOW take a moment to enter the model, serial number and the date of purchase of your Auto-Load Round Bale Handler in the space provided.

When ordering parts from your Dealer, please refer to these numbers for a fast and efficient service. Use PRONOVOST replacement parts.

The model and serial numbers are on the nameplate shown on Figure 1.



Figure 1

MODEL: _____ ✍

SERIAL NO.: _____ ✍

DATE OF PURCHASE: _____ ✍

SAFETY

GENERAL SAFETY

WHEN YOU SEE THIS SYMBOL

2



ATTENTION!

**BE ALERT
YOUR SAFETY IS INVOLVED**

This symbol "**SAFETY ALERT**" is used in this manual and on the safety decals on the Round Bale Handler. It warns you of the possibility of danger. Carefully read, understand and follow all safety recommendations before operating the unit.

- 1) Careful operation is the best assurance against accidents. Carefully read this manual and follow all recommendations before operating your Round Bale Handler. It is the owner's responsibility to make sure that anyone who will operate the unit will read this manual before operating the equipment.
- 2) Never let a child nor unauthorized persons operate the machine.
- 3) Do not modify the equipment. Any non authorized modification may affect the efficiency and/or safety of the equipment.
- 4) Never operate the Round Bale Handler with defective parts or if damaged in any way. Have it repaired before operating.
- 5) Make sure all fasteners are in place and properly secured or tightened. Refer to torque chart on page 52.
- 6) Hydraulic fluids under pressure can damage your skin. Do not use your hands to locate a leak. Gloves must be worn.

SAFETY IN OPERATION

- 1) Be sure there are no obstructions around the equipment and that no one stands near the machine when in operation or unloading.
- 2) Be careful when adjusting equipment with engine running.
- 3) Keep your body, hands, feet, hair and clothing away from moving parts.
- 4) Do not stand nor allow anyone to stand under elevated parts of the machine.
- 5) When not in use, always lock the loading arms with the pin provided. (Figure 10, page 9)

SAFETY WITH MAINTENANCE

- 1) Perform maintenance according to the recommendations contained in this manual.
- 2) Stop engine and relieve all hydraulic pressures before doing inspection, maintenance or repairs.
- 3) Regularly check hydraulic lines and fittings for leaks. Replace if necessary.
- 4) If you must perform work under the raised platform, **always block it in position in a safe manner.**

SAFETY IN TRANSPORT

- 1) Check local regulations for the transport of your Round Bale Handler on the road.
- 2) Be alert when pulling the Round Bale Handler on the road. Do not allow anyone to stand on it while in motion.
- 3) Be careful while backing-up.

SAFETY IN STORAGE

- 1) Lower the loading arm to avoid any accidental crushing.

DECALS

SAFETY DECALS

The safety decals are affixed wherever special safety precautions are indicated. Locate them on the machine and read them carefully. If a decal is damaged, lost or illegible, install a new one. Each decal is identified with a letter and part number. The following photos indicate where each one must be installed.



Figure 2
Decal A

Part no.: A101



Figure 4
Decal B

Part no.: A102

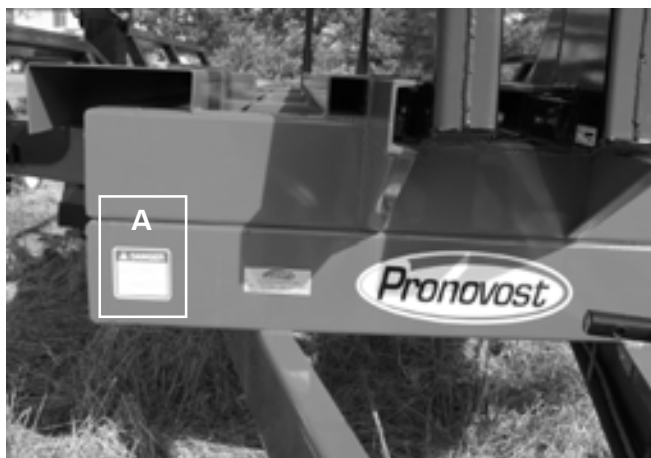


Figure 3



Figure 5

3

DECALS (cont'd)



Figure 6
Decal C

Part no.: A103

MAINTENANCE DECALS

The maintenance decals indicate the points requiring lubrication. Refer to the maintenance section for more details.

3

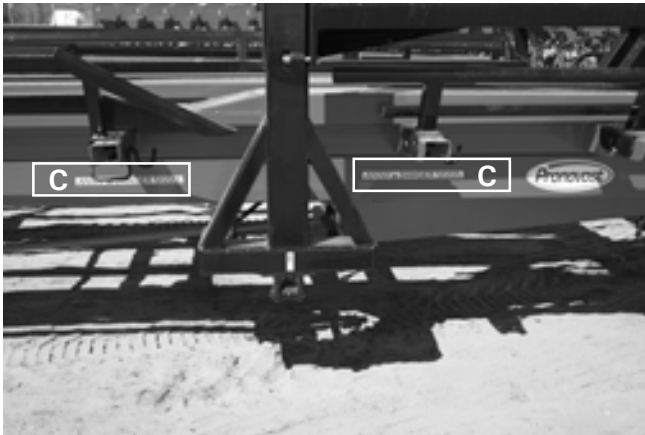


Figure 7



Part no.: A105



Part no.: A106

Figure 8

START-UP

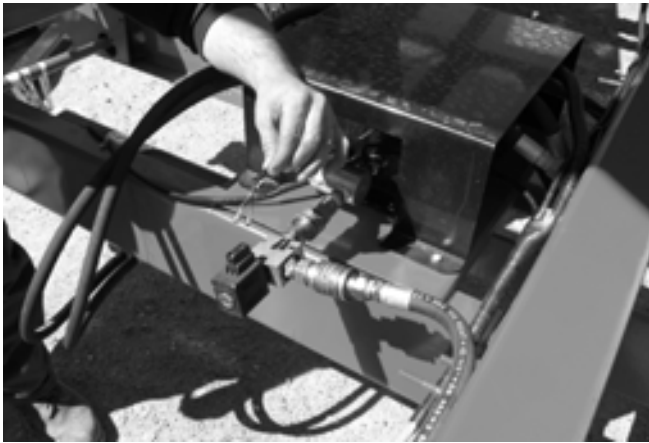


Figure 9

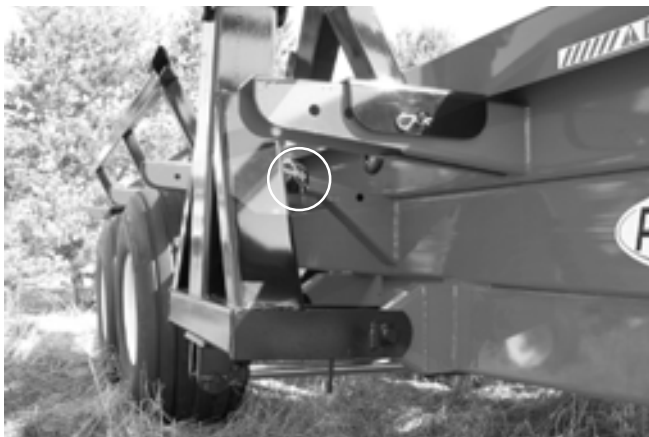


Figure 10



Figure 11

BASIC START-UP PROCEDURES

- 1) Oil flow recommended 15 to 18 gal. US / min.
- 2) Lubricate all points with a good quality multi use grease.
- 3) Adjust tire pressure according to manufacturer's recommendation.
- 4) Install all hydraulic hoses and fittings compatible with your equipment.

Models P-6810, P-6812 & P-6816 only.

- 5) If your tractor is equipped with a closed center hydraulic system, the conversion kit P-6890CF must be installed. A plug-in solenoid valve is provided as an option and must be connected to the hydraulic circuit and to the electric circuit. (Figure 9).

- 6) Hook up the Round Bale Handler to the tractor and connect the hydraulic hoses as indicated in page 30, 32,34, 36, 38 or 40.

Models P-6810, P-6812 & P-6816 only.

- 7) Install the control module in a convenient location near the tractor seat, usually on the right hand side.
- 8) Operate all hydraulic functions in order to purge the system. **Do not forget to remove the pin locking the loading arm in the upright position (Figure 10) and assure there is no one within 10 feet of the loading area.**
- 9) Check the oil level in the tractor's hydraulic oil reservoir.
- 10) Install hinged bale slides. Insert the bolts so that the nuts are toward the outer side of the bale row to prevent the bale twine from snagging on the nuts. (Figure 11)
- 11) Although it is possible to transport an additional bale in the loading arm, **its weight must not exceed 2000 lbs.**

4

START-UP (cont'd)

4

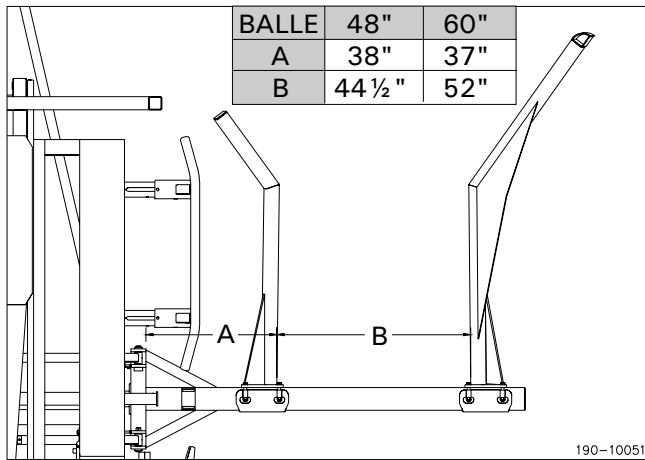


Figure 12

ADJUSTMENTS

LOADING ARMS (Patented)

- 1) Adjust the opening and position of the loading arms according to recommendations (Figure 12). The dimensions given are to be used as a guide only since they may vary according to the bale size, weight and degree of softness.

SIDE RAILS

- 1) Adjust the side rails position according to the bale size and configuration (Figure 13). This adjustment is to prevent the rocking of the bales from side to side during transportation.

BALE RAM

Models P-6810, P-6812 & P-6816 only.

- 1) The length of stroke is factory set for the longest bale dimension (5 1/2'); the limit switch in position A. Although the stroke can be shortened to further increase the efficiency of the machine while handling shorter bales (4'); put the limit switch in position B (Figure 14).



Figure 13

SWIVEL HITCH ASSEMBLY

- 1) Adjust the swivel hitch assembly to keep the machine parallel with the ground. Three sets of bolt holes are provided (Figure 15) to keep the machine level in operation.

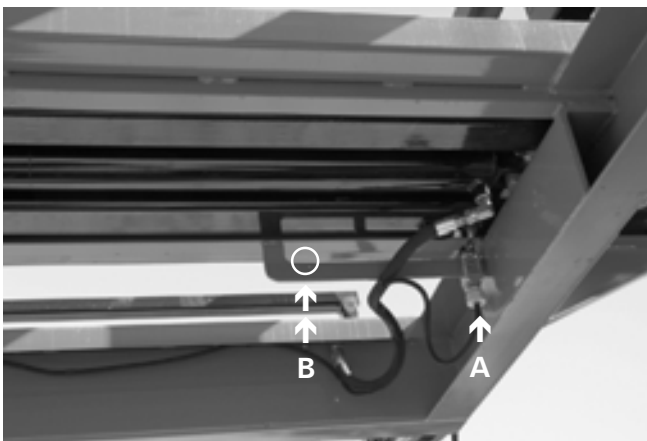


Figure 14



Figure 15

START-UP (cont'd)

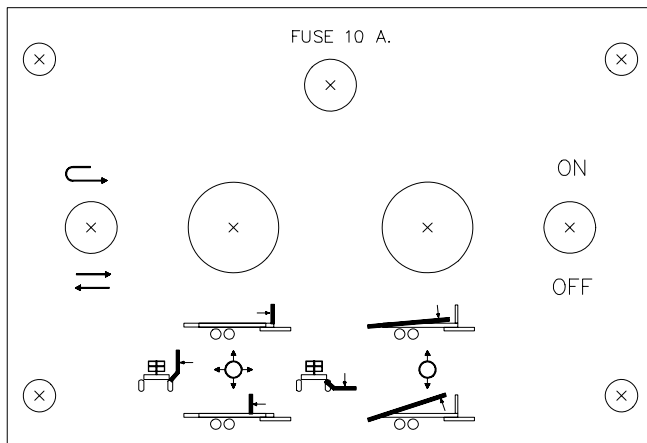


Figure 16

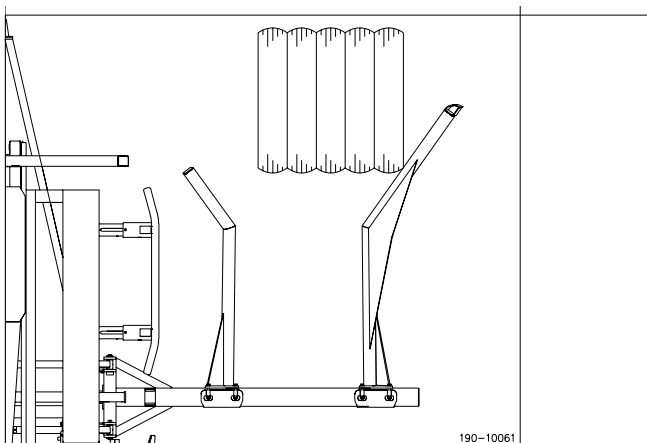


Figure 17

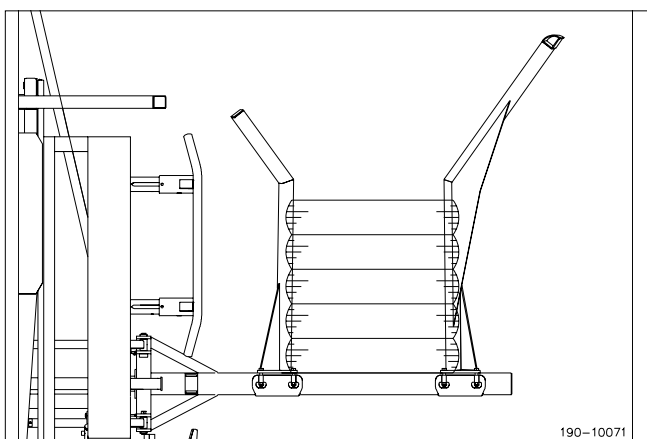


Figure 18

OPERATION

Models P-6810, P-6812 & P-6816 only.

- 1) First familiarize yourself with the controls and their functions. (Figure 16)
- 2) Remember that the Round Bale Handler is designed and built to turn the bales and load them non stop, consequently, the direction of travel will usually be the same as the baler's.
- 3) When ready for the first bale, lower the loading arm to just a few inches above the ground, slow down this is a practice round, line up the machine so that the outer corner of the bale will touch at approximately 1/3 to 1/2 way up the angled part of the outer arm. (Figure 17)
- 4) Raise the loading arm as soon or slightly before the bale reaches the bottom of the "U". (Figure 18)
- 5) Keep raising the bale until it drops onto the platform. Do the same for loading the second row. Then start lowering the loading arm in order to disengage the limit switch (there is a limit switch installed on the machine, preventing the bale ram and the dumping platform from being activated if the loading arm isn't lowered enough).

Models P-6810, P-6812 & P-6816 only.

- 6) Momentarily actuate the ram control lever (ram switch in the "AUTO" position). The ram will index the two bales toward the rear and will automatically return to the front position.
- 7) Once accustomed to the machine and its operation, you will notice that by slightly altering the alignment of the bale relative to the outside loading arm, you will be able to turn it and load it much more rapidly. In this case, the bale should hit the loading arm slightly closer to the heel.

4

START-UP (cont'd)



4

Figure 19

- 8) When the first pair of bales loaded reach the bale supports at the extreme rear end of the platform, an indicator will pop out on the front corner of the platform opposite from the loading arm. (Figure 19)
- 9) To unload the bales, simply back up to the area where you wish to deposit the bales, open up the loading arm slightly to clear the platform. Raise the platform fully, then slowly move forward.

MAINTENANCE

The Auto-Load Round Bale Handler is designed to save you energy, time and money, take care of it, protect your investment.

- 1) Wipe off all grease fittings with a clean cloth before adding grease to avoid injecting contaminants.
- 2) Repair or replace damaged grease fittings.
- 3) Lubricate all grease fittings every 20 hours of operation. (Do not forget the Bale Ram, 4 bronze bushings).
- 4) Open, clean and lubricate wheel bearings once a year.
- 5) Check nuts and bolts once a year. If necessary, use torque chart page 52.
- 6) Check all bolts on wheels after the first 5 hours of operation and then every 50 hours.
- 7) Check tire pressure every 50 hours. Adjust according to manufacturer's recommendations indicated on the tires.
- 8) Keep your equipment clean, it is good practice.

STORAGE

- 1) Store the Auto-Load Round Bale Handler in a cool, dry place.
- 2) Keep tires off the ground and cover them if left exposed to the sun.
- 3) Keep all piston rods in the retracted position (the loading arm must be lowered). This will assure better protection against the elements.
- 4) Clean your Auto-Load Round Bale Handler.
- 5) Thoroughly inspect all parts of the Round Bale Handler. Replace or repair worn or defective parts.
- 6) Touch-up or repaint if necessary.
- 7) Lubricate all points before storage.

SPECIFICATIONS

| MODELS | P-6810M | P-6810 | P-6812M | P-6812 | P-6816M | P-6816 |
|--|---|--------|---|--------|---|--------|
| Total capacity 12 tons ¹ (GVWR) | Standards tires 16.5L16.1 with wheels W14C16.1 (280 x 404 mm) | | | | --- | |
| Total capacity 16 tons ¹ (GVWR) | --- | | Optionals tires 21.5L16.1 with wheels W16C16.1 (403 x 404 mm) | | Standards tires 21.5L16.1 with wheels W16C16.1 (403 x 404 mm) | |
| Total capacity 20 tons (GVWR) | --- | | | | Optionals tires 21.5L16.1FI with wheels W16C16.1 (403 x 404 mm) | |
| Total capacity 20 tons (GVWR) and high flotation | --- | | | | Optionals tires 500/45-22.5 with wheels W16C16.1 (403 x 404 mm) | |
| Sides adjustable to bales ø | 4' to 5 1/2' std. (6' opt.) ● 1.2 to 1.7 m std. (1.8 m opt.) | | | | | |
| Bales length | 4' to 5 1/2' std. ● 1.2 to 1.7 m | | | | | |
| Wheels (number of bolts) | 8 bolts | | | | | |
| Number of bales 4' long | Std. 10 (2 rows of 5 bales) opt. add 1 row of 4 bales | | Std. 12 (2 rows of 6 bales) opt. add 1 row of 5 bales | | Std. 16 (2 rows of 8 bales) opt. add 1 row of 7 bales | |
| Number of bales 5' long | Std. 8 (2 rows of 4 bales) opt. add 1 row of 3 bales | | Std. 10 (2 rows of 5 bales) opt. add 1 row of 4 bales | | Std. 12 (2 rows of 7 bales) opt. add 1 row of 6 bales | |
| Overall length | 27' 6" ● 8.38 m | | 31' 10" ● 9.70 m | | 39' 10" ● 12.14 m | |
| Overall width | 8' 6" à 10' 0" ● 2.59 à 3.05 m | | | | | |
| Platform height | 44 5/8" ● 1133 mm | | 45 1/2" ● 1156 mm (tires std) | | 47 1/4" ● 1200 mm (tires std) | |
| | --- | | 47 1/4" ● 1200 mm (tires opt.) | | 47 1/4" ● 1200 mm (tires opt.) | |
| Dumping angle | 35 degrees | | | | | |
| Tread width (c/c) | 83 1/2" ● 2121 mm | | 80 1/2" ● 2045 mm | | | |
| Hitch weight (empty) | 1500 lbs approx. | | 1800 lbs approx. | | 2800 lbs approx. | |
| | 681 kg. approx. | | 818 kg. approx. | | 1270 kg. approx. | |
| Swivel hitch | Std. | | | | | |
| Automatic return of bale ram | not available | Std | not available | Std | not available | Std |
| Remote control | not available | Std | not available | Std | not available | Std |
| Axle | Tandem | | | | | |
| Hub (capacity) | 8000 lbs (3636 kg) | | 10000 lbs ● 4545 kg | | | |
| Spindles (diameter) | 3" ● 73 mm | | 3 1/4" ● 83 mm | | | |
| Recommended tractor | 80 HP | | 100 HP | | 125 HP | |
| Total weight | 6500 lbs approx. | | 7500 lbs approx. | | 10500 lbs approx. | |
| | 2948 kg approx. | | 3402 kg approx. | | 4763 kg approx. | |

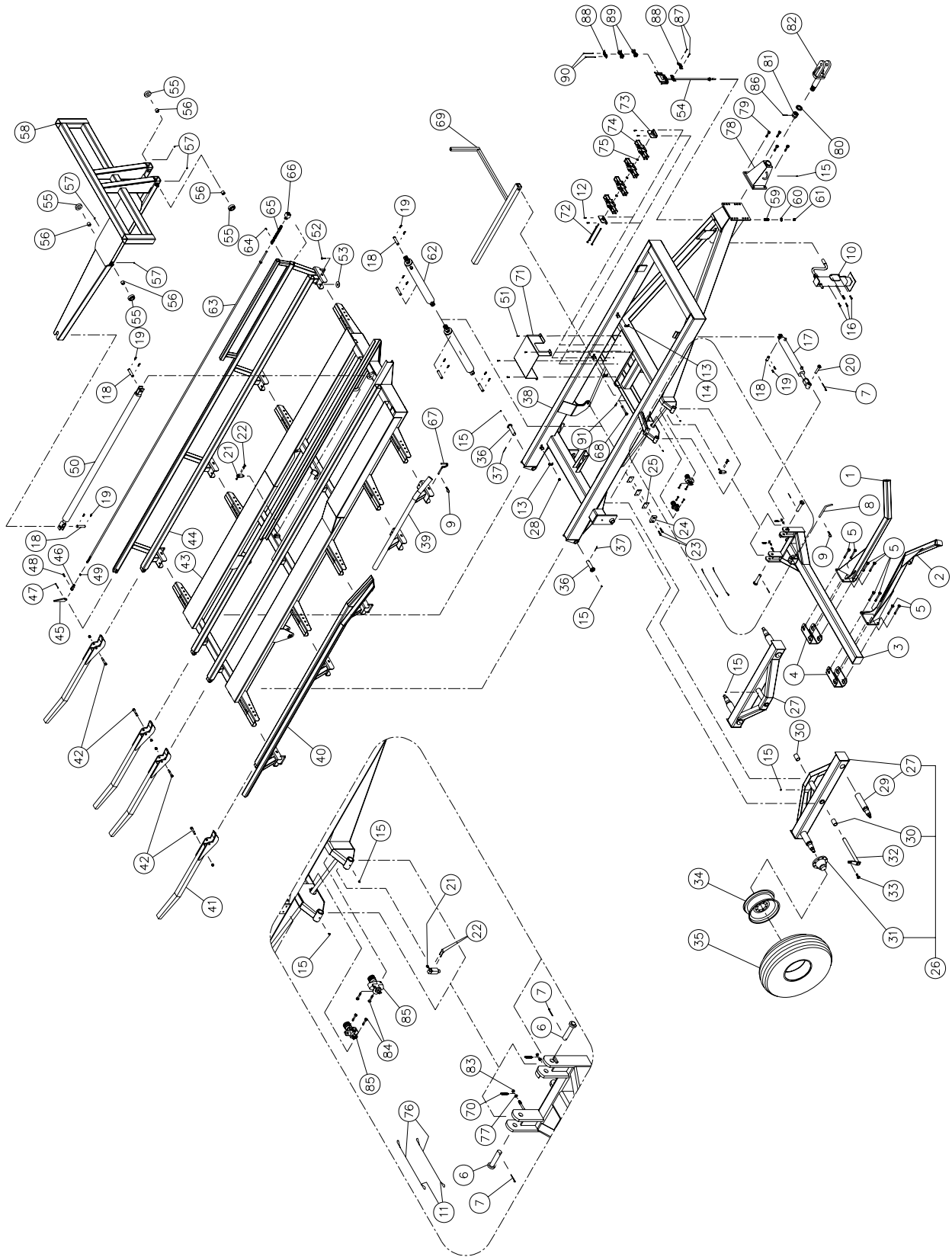
¹For speeds not exceeding 10 MPH.

Design and specifications subject to change without notice.

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AUTO-LOAD ROUND BALE HANDLER P-6810 & P-6810M

170-04431R1



AUTO-LOAD ROUND BALE HANDLER P-6810 & P-6810M (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|---------------|--|-------------|---------|
| | | | P-6810 | P-6810M |
| 1 | 110-27061 | Inner arm | 1 | 1 |
| 2 | 120-00122 | Outer arm | 1 | 1 |
| 3 | 110-00382 | Loading arm support | 1 | 1 |
| 4 | 110-27102 | Back plate | 2 | 2 |
| 5 | 307-46490 | Bolt 3/4" NF x 4 1/2" lg GR 12 + nylon locknut | 8 | 8 |
| 6 | 110-00411 | Clevis pin 1 1/4" dia. x 6 3/8" lg | 2 | 2 |
| 7 | Std. | Cutter pin 1/4" dia. x 2" lg | 3 | 3 |
| 8 | 150-00271 | Pin | 1 | 1 |
| 9 | Std. | Hitch pin clip 5/32" | 10 | 10 |
| 10 | 110-20563 | Jack 12000 lbs (drop leg) | 1 | 1 |
| 11 | Std. | Wire clip 1/8" | - | 4 |
| 12 | 300-32250 | Bolt 1/4" NC x 1" lg + nylon locknut | 4 | - |
| 13 | 140-00481 | Collar 3" lg | 11 | 11 |
| 14 | 140-04801 | Collar 4 1/2" lg. | - | 2 |
| 15 | Std. | Grease fitting 1/4-28 droit | 7 | 7 |
| 16 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 4 | 4 |
| 17 | 30AT20 | Cylinder | 1 | 1 |
| 18 | 150-01841 | Clevis pin 1" dia. x 3 1/8" lg | 7 | 7 |
| 19 | Std. | Hairpin cotter | 14 | 14 |
| 20 | 110-00431 | Clevis pin 1" dia. x 5 3/8" lg | 1 | 1 |
| 21 | 32254 | Loading arm stopper | 3 | - |
| 22 | 322-20310 | Square head bolt 10-24 x 1 1/2" lg | 6 | - |
| 23 | 327-36310 | Hexagonal socket set screw 3/8" NC x 1 1/2" lg | 2 | 2 |
| 24 | 190-00071 | Loading arm stopper | 1 | 1 |
| 25 | 140-04671 | Spacer | as required | |
| 26 | 110-33981 | Tandem assembly | 2 | 2 |
| 27 | 110-33982 | Tandem frame | 2 | 2 |
| 28 | 346-34000 | Nylon locknut 5/16" NC | 11 | 13 |
| 29 | 150-09931 | Axle (welded) | 4 | 4 |
| 30 | 160-00661 | Bushing 1 3/4" d.i. x 2" d.e. x 3" lg | 4 | 4 |
| 31 | 36132 | Hub H-8001 assembly | 4 | 4 |
| 32 | 110-27111 | Clevis 1 3/4" dia. x 22 1/8" lg | 2 | 2 |
| 33 | 302-46310 | Bolt 3/4" NF x 1 1/2" lg + locktite | 2 | 2 |
| 34 | W14C16.1-1.5N | Rim 16.1 x 14-8 bolts | 4 | 4 |
| 35 | PN-165161 | Tire 16.5 x 16.1 - 10 plys | 4 | 4 |
| 36 | 110-00391 | Clevis pin 1 1/2" dia. x 6 1/2" lg | 2 | 2 |
| 37 | Std. | Cotter pin 1/4" dia. x 2 1/2" lg | 2 | 2 |
| 38 | 120-06171 | Frame P-6810 | 1 | 1 |
| 39 | 120-06263 | Front rail (right side) | 1 | 1 |
| 40 | 120-06242 | Rear rail (right side) | 1 | 1 |
| 41 | 110-34011 | Rear fork | 4 | 4 |
| 42 | 300-46520 | Bolt 3/4-NC x 5" + flat washer + nylon locknut | 4 | 4 |
| 43 | 120-06191 | Platform for P-6810 | 1 | 1 |
| 44 | 120-06231 | Left rail | 1 | 1 |
| 45 | 130-00701 | Load indicator lever | 1 | 1 |
| 46 | 51435 | Yoke 1/2" NF + nut | 1 | 1 |
| 47 | 300-34400 | Bolt 5/16" NC x 3" lg + nylon locknut | 1 | 1 |
| 48 | Std. | Clevis + cotter pin 3/32" dia. x 3/4" lg | 1 | 1 |
| 49 | 336-40000 | Nut 1/2" NC | 1 | 1 |



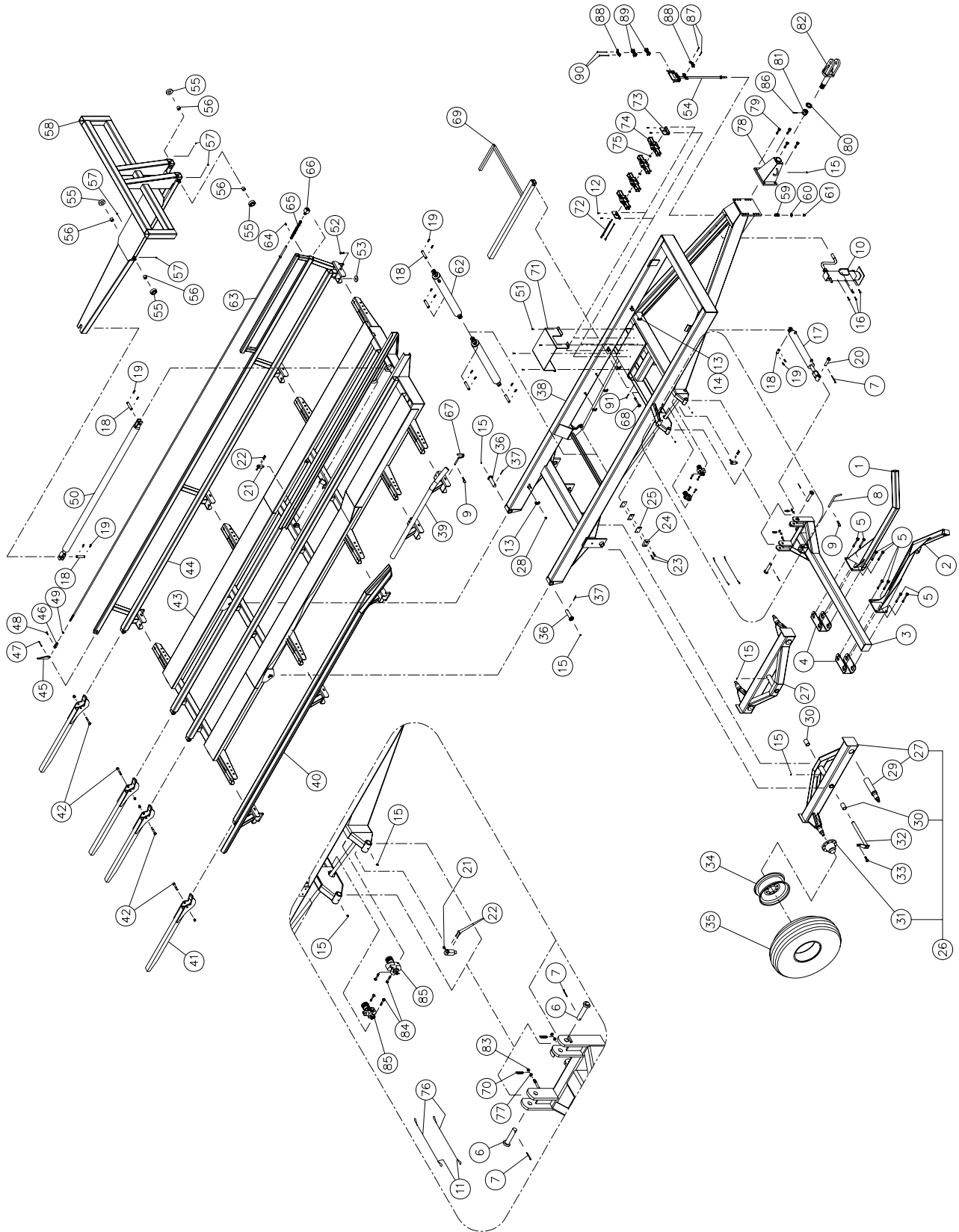
AUTO-LOAD ROUND BALE HANDLER P-6810 & P-6810M

| REF. | PART # | DESCRIPTION | QTY | |
|------|-----------|---|--------|---------|
| | | | P-6810 | P-6810M |
| 50 | 30FT84 | Cylinder | 1 | 1 |
| 51 | 300-36250 | Bolt 3/8" NC x 1" lg + nylon locknut | 4 | Opt. |
| 52 | 300-40325 | Bolt 1/2" NC x 13/4" lg + nylon locknut | 9 | 9 |
| 53 | 130-57741 | Retaining washer | 9 | 9 |
| 54 | 110-36211 | Hoses support | 1 | 1 |
| 55 | 130-00591 | Pusher wheel | 4 | 4 |
| 56 | 160-00811 | Bushing 1 1/4" i.d. x 1 1/2" o.d. x 1 1/4" lg | 4 | 4 |
| 57 | Std. | Grease fitting 1/8 NPT elbow 90 deg. | 4 | 4 |
| 58 | 120-06281 | Pusher | 1 | 1 |
| 59 | 190-10001 | Compression spring | 1 | 1 |
| 60 | 376-44000 | Flat washer 5/8" | 1 | 1 |
| 61 | 346-44000 | Nylon locknut 5/8" NC | 1 | 1 |
| 62 | 30BC28 | Cylinder | 2 | 2 |
| 63 | 110-34111 | Rod for load indicator | 1 | 1 |
| 64 | 300-34220 | Bolt 5/16" NC x 3/4" lg | 1 | 1 |
| 65 | 610-023 | Compression spring 1 3/16" d.e. x 11" lg | 1 | 1 |
| 66 | 110-00521 | Load indicator | 1 | 1 |
| 67 | 150-00281 | Pin | 9 | 9 |
| 68 | 300-46490 | Bolt 3/4" NC x 4 1/2" lg + nylon locknut | 1 | 1 |
| 69 | 110-34121 | Safety prop | 1 | 1 |
| 70 | — | Spring 5/32" wire x 23/32" o.d. x 3 1/4" lg (included with valve #644-10000) .. | - | 2 |
| 71 | 130-58281 | Valve shroud | 1 | opt. |
| 72 | 110-20501 | Threaded rod 3/8" NC x 9" lg + 2 nylon locknut | 3 | - |
| 72 | 110-20491 | Threaded rod 3/8" NC x 11 1/2" lg + 2 nylon locknut | | |
| | | for third row option (3) | opt. | - |
| 73 | 130-00732 | Solenoid valve support | 2 | - |
| 74 | 18019 | Solenoid valve | 3 | - |
| 74 | 18019 | Additional solenoid valve for third row option (1) | opt. | - |
| 75 | QR-4021 | Quad ring | 2 | - |
| 75 | QR-4021 | Additional quad ring for third row option (1) | opt. | - |
| 76 | 190-04591 | Wire 1/8" x 15" | - | 2 |
| 77 | 346-38000 | Nylon locknut 7/16" NC | - | 2 |
| 78 | 120-00141 | Hitch assy. | 1 | 1 |
| 79 | 300-46400 | Bolt 3/4" NC x 3" lg + nylon locknut | 4 | 4 |
| 80 | 130-21111 | Flat washer 1 13/16" i.d. x 3" o.d. | 1 | 1 |
| 81 | 357-62000 | Castle nut 1 3/4" -5 NC | 1 | 1 |
| 82 | 110-00491 | Swivel hitch | 1 | 1 |
| 83 | 349-38500 | Two-way locknut 7/16" NC | - | 2 |
| 84 | 300-38250 | Bolt 7/16" NC x 1" lg + nylon locknut | - | 4 |
| 85 | 644-10000 | Cushion valve 3/8" NPT | - | 2 |
| 86 | Std. | Cotter pin 1/4" x 3 1/2" lg. | 1 | 1 |
| 87 | 300-32310 | Bolt 1/4" NC x 1 1/2" lg + nylon locknut | 2 | 2 |
| 88 | 140-21201 | Collar | 2 | 2 |
| 89 | 110-35801 | Collar | 1 | 2 |
| 90 | 300-32430 | Bolt 1/4" NC x 3 1/2" lg + nylon locknut | 2 | - |
| 90 | 300-32520 | Bolt 1/4" NC x 5" lg + nylon locknut | - | 2 |
| 91 | 300-36250 | Bolt 3/8" NC x 1" lg + 2 thin nuts | 1 | 1 |



AUTO-LOAD ROUND BALE HANDLER P-6812 & P-6812M

170-04491R1



AUTO-LOAD ROUND BALE HANDLER P-6812 & P-6812M (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|---------------|--|-------------|---------|
| | | | P-6812 | P-6812M |
| 1 | 110-27061 | Inner arm | 1 | 1 |
| 2 | 120-00122 | Outer arm | 1 | 1 |
| 3 | 110-00382 | Loading arm support | 1 | 1 |
| 4 | 110-27102 | Back plate | 2 | 2 |
| 5 | 307-46490 | Bolt 3/4" NF x 4 1/2" lg GR 12 + nylon locknut | 8 | 8 |
| 6 | 110-00411 | Clevis pin 1 1/4" dia. x 6 3/8" lg | 2 | 2 |
| 7 | Std. | Cutter pin 1/4" dia. x 2 « lg | 3 | 3 |
| 8 | 150-00271 | Pin | 1 | 1 |
| 9 | Std. | Hitch pin clip 5/32" | 10 | 10 |
| 10 | 110-20563 | Jack 12000 lbs (drop leg) | 1 | 1 |
| 11 | Std. | Wire clip 1/8" | - | 4 |
| 12 | 300-32250 | Bolt 1/4" NC x 1" lg + nylon locknut | 4 | - |
| 13 | 140-00481 | Collar 3" lg | 15 | 15 |
| 14 | 140-04801 | Collar 4 1/2" lg | - | 2 |
| 15 | Std. | Grease fitting 1/4-28 straight | 7 | 7 |
| 16 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 4 | 4 |
| 17 | 30AT20 | Cylinder | 1 | 1 |
| 18 | 150-01841 | Clevis pin 1" dia. x 3 1/8" lg | 7 | 7 |
| 19 | Std. | Hairpin cotter | 14 | 14 |
| 20 | 110-00431 | Clevis pin 1" dia. x 5 3/8" lg | 1 | 1 |
| 21 | 32254 | Interrupteur de fin de course | 3 | - |
| 22 | 322-20310 | Square head bolt 10-24 x 1 1/2" lg | 6 | - |
| 23 | 327-36310 | Hexagonal socket set screw 3/8" NC x 1 1/2" lg | 2 | 2 |
| 24 | 190-00071 | Loading arm stopper | 1 | 1 |
| 25 | 140-04671 | Spacer | as required | |
| 26 | 110-35441 | Tandem assembly | 2 | 2 |
| 27 | 110-35442 | Tandem frame | 2 | 2 |
| 28 | 346-34000 | Nylon locknut 5/16" NC | 15 | 17 |
| 29 | 150-10291 | Axle (welded) | 4 | 4 |
| 30 | 160-00661 | Bushing 1 3/4" i.d. x 2" o.d. x 3" lg | 4 | 4 |
| 31 | 36133 | Hub H-10000 assembly | 4 | 4 |
| 32 | 110-27111 | Clevis 1 3/4" dia. x 22 1/8" lg | 2 | 2 |
| 33 | 302-46310 | Bolt 3/4" NF x 1 1/2" lg + locktite | 2 | 2 |
| 34 | W14C16.1-1.5N | Rim 16.1 x 14-8 bolts | 4 | 4 |
| 34 | W16C16.1-1.5N | Rim 16.1 x 16-8 bolts | Opt. | Opt. |
| 35 | PN-165161 | Tire 16.5 x 16.1 - 10 plis | 4 | 4 |
| 35 | PN-215161 | Tire 21.5 x 16.1 - 10 plis | Opt. | Opt. |
| 36 | 110-00391 | Clevis pin 1 1/2" dia. x 6 1/2" lg | 2 | 2 |
| 37 | Std. | Cotter pin 1/4" dia. x 2 1/2" lg | 2 | 2 |
| 38 | 120-06351 | Frame P-6812 | 1 | 1 |
| 39 | 120-06263 | Front rail (right side) | 1 | 1 |
| 40 | 120-06631 | Rear rail (right side) | 1 | 1 |
| 41 | 110-06471 | Rear fork | 4 | 4 |
| 42 | 300-46520 | Bolt 3/4-NC x 5" + flat washer + nylon locknut | 4 | 4 |
| 43 | 120-06361 | Frame for P-6812 | 1 | 1 |
| 44 | 120-06381 | Left rail | 1 | 1 |
| 45 | 130-00701 | Load indicator lever | 1 | 1 |
| 46 | 51435 | Yoke 1/2" NF + nut | 1 | 1 |
| 47 | 300-34400 | Bolt 5/16" NC x 3" lg + nylon locknut | 1 | 1 |
| 48 | Std. | Clevis + cotter pin 3/32" dia. x 3/4" lg | 1 | 1 |



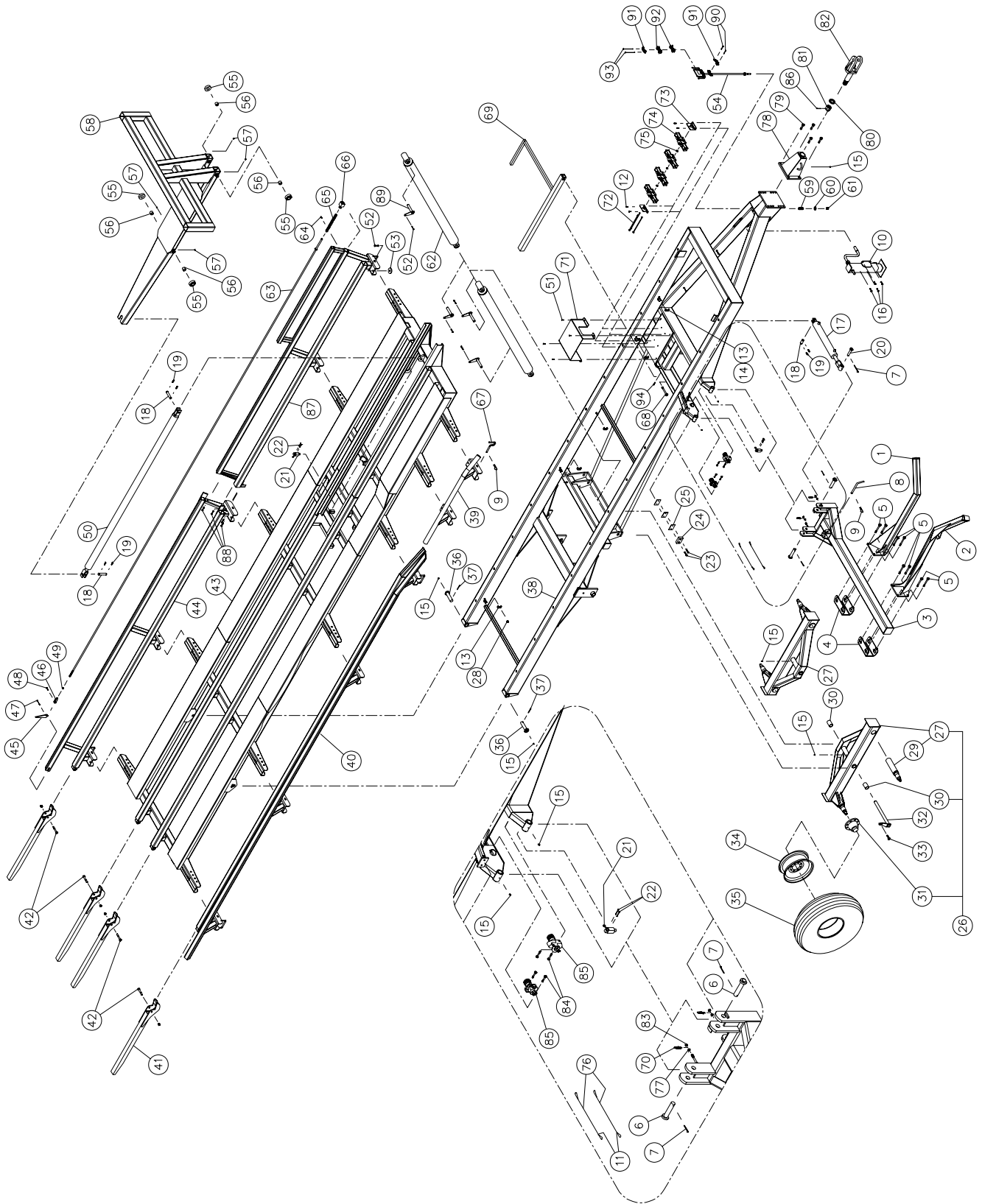
AUTO-LOAD ROUND BALE HANDLER P-6812 & P-6812M (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|-----------|---|--------|---------|
| | | | P-6812 | P-6812M |
| 49 | 336-40000 | Nut 1/2" NC | 1 | 1 |
| 50 | 30FT84 | Cylinder | 1 | 1 |
| 51 | 300-36250 | Bolt 3/8" NC x 1" lg + nylon locknut | 4 | opt. |
| 52 | 300-40325 | Bolt 1/2" NC x 13/4" lg + nylon locknut | 9 | 9 |
| 53 | 130-57741 | Retaining washer | 9 | 9 |
| 54 | 110-36211 | Hoses support | 1 | 1 |
| 55 | 130-00591 | Pusher wheel | 4 | 4 |
| 56 | 160-00811 | Bushing 1 1/4" i.d. x 1 1/2" o.d. x 1 1/4" lg | 4 | 4 |
| 57 | Std. | Grease fitting 1/8 NPT elbow 90 deg. | 4 | 4 |
| 58 | 120-06281 | Pusher | 1 | 1 |
| 59 | 190-10001 | Compression spring | 1 | 1 |
| 60 | 376-44000 | Flat washer 5/8" | 1 | 1 |
| 61 | 346-44000 | Nylon locknut 5/8" NC | 1 | 1 |
| 62 | 35BS35 | Cylinder | 2 | 2 |
| 63 | 110-34871 | Rod for load indicator | 1 | 1 |
| 64 | 300-34220 | Bolt 5/16" NC x 3/4" lg | 1 | 1 |
| 65 | 610-023 | Compression spring 1 3/16" d.e. x 11" lg | 1 | 1 |
| 66 | 110-00521 | Load indicator | 1 | 1 |
| 67 | 150-00281 | Pin | 9 | 9 |
| 68 | 300-46490 | Bolt 3/4" NC x 4 1/2" lg + nylon locknut | 1 | 1 |
| 69 | 110-35221 | Safety prop | 1 | 1 |
| 70 | — — | Spring 5/32" wire x 23/32" o.d. x 3 1/4" lg (included with valve #644-10000) . | - | 2 |
| 71 | 130-58281 | Valve shroud | 1 | opt. |
| 72 | 110-20501 | Threaded rod 3/8" NC x 9" lg + 2 nylon locknut | 3 | - |
| 72 | 110-20491 | Threaded rod 3/8" NC x 11 1/2" lg + 2 nylon locknut for third row option (3) | opt. | - |
| 73 | 130-00732 | Solenoid valve support | 2 | - |
| 74 | 18019 | Solenoid valve | 3 | - |
| 74 | 18019 | Additional solenoid valve for third row option (1) | opt. | - |
| 75 | QR-4021 | Quad ring | 2 | - |
| 75 | QR-4021 | Additional quad ring for third row option (1) | opt. | - |
| 76 | 190-04591 | Wire 1/8" x 15" | - | 2 |
| 77 | 346-38000 | Nylon locknut 7/16" NC | - | 2 |
| 78 | 120-00141 | Hitch assy. | 1 | 1 |
| 79 | 300-46400 | Bolt 3/4" NC x 3" lg + nylon locknut | 4 | 4 |
| 80 | 130-21111 | Flat washer 1 13/16" i.d. x 3" o.d. | 1 | 1 |
| 81 | 357-62000 | Castle nut 1 3/4" -5 NC | 1 | 1 |
| 82 | 110-00491 | Swivel hitch | 1 | 1 |
| 83 | 349-38500 | Two-way locknut 7/16" NC | - | 2 |
| 84 | 300-38250 | Bolt 7/16" NC x 1" lg + nylon loknut | - | 4 |
| 85 | 644-10000 | Cushion valve 3/8" NPT | - | 2 |
| 86 | Std. | Cotter pin 1/4" x 3 1/2" lg | 1 | 1 |
| 87 | 300-32310 | Bolt 1/4" NC x 1 1/2" lg + nylon locknut | 2 | 2 |
| 88 | 140-21201 | Collar | 2 | 2 |
| 89 | 110-35801 | Collar | 1 | 2 |
| 90 | 300-32430 | Bolt 1/4" NC x 3 1/2" lg + nylon locknut | 2 | - |
| 90 | 300-32520 | Bolt 1/4" NC x 5" lg + nylon locknut | - | 2 |
| 91 | 300-36371 | Bolt 3/8" NC x 2 1/2" lg + 2 thin nuts | 1 | 1 |



AUTO-LOAD ROUND BALE HANDLER P-6816 & P-6816M

170-04561R1



AUTO-LOAD ROUND BALE HANDLER P-6816 & P-6816M (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|---------------|---|-------------|---------|
| | | | P-6816 | P-6816M |
| 1 | 110-27061 | Inner arm | 1 | 1 |
| 2 | 120-00122 | Outer arm | 1 | 1 |
| 3 | 110-00382 | Loading arm support | 1 | 1 |
| 4 | 110-27102 | Back plate | 2 | 2 |
| 5 | 307-46490 | Bolt 3/4" NF x 4 1/2" lg GR 12 + nylon locknut | 8 | 8 |
| 6 | 110-00411 | Clevis pin 1 1/4" dia. x 6 3/8" lg | 2 | 2 |
| 7 | Std. | Cotter pin 1/4" dia. x 2 « lg | 3 | 3 |
| 8 | 150-00271 | Pin | 1 | 1 |
| 9 | Std. | Hitch pin clip 5/32" | 12 | 12 |
| 10 | 110-35291 | Jack 12000 lbs (drop leg) | 1 | 1 |
| 11 | Std. | Wire clip 1/8" | - | 4 |
| 12 | 300-32250 | Bolt 1/4" NC x 1" lg + nylon locknut | 4 | - |
| 13 | 140-00481 | Collar 3" lg | 19 | 19 |
| 14 | 140-04801 | Collar 4 1/2" lg | 2 | 4 |
| 15 | Std. | Grease fitting 1/4-28 droit | 7 | 7 |
| 16 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 4 | 4 |
| 17 | 30AT20 | Cylinder | 1 | 1 |
| 18 | 150-01841 | Clevis pin 1" dia. x 3 1/8" lg | 3 | 3 |
| 19 | Std. | Hairpin cotter | 6 | 6 |
| 20 | 110-00431 | Clevis pin 1" dia. x 5 3/8" lg | 1 | 1 |
| 21 | 32254 | Loading arm stopper | 3 | - |
| 22 | 322-20310 | Square head bolt 10-24 x 1 1/2" lg | 6 | - |
| 23 | 327-36310 | Hexagonal socket set screw 3/8" NC x 1 1/2" lg | 2 | 2 |
| 24 | 190-00071 | Loading arm stopper | 1 | 1 |
| 25 | 140-04671 | Spacer | as required | |
| 26 | 110-35441 | Tandem assembly | 2 | 2 |
| 27 | 110-35443 | Tandem frame | 2 | 2 |
| 28 | 346-34000 | Nylon locknut 5/16" NC | 19 | 21 |
| 29 | 150-10291 | Axle (welded) | 4 | 4 |
| 30 | 160-00661 | Bushing 1 3/4" i.d. x 2" o.d. x 3" lg | 4 | 4 |
| 31 | 36133 | Hub H-10000 assembly | 4 | 4 |
| 32 | 110-27111 | Clevis 1 3/4" dia. x 22 1/8" lg | 2 | 2 |
| 33 | 302-46310 | Bolt 3/4" NF x 1 1/2" lg + locktite | 2 | 2 |
| 34 | W16C16.1-1.5N | Rim 16.1 x 16-8 bolts | 4 | 4 |
| 35 | PN-215161 | Tire 21.5 x 16.1 - 10 plys | 4 | 4 |
| 35 | PN-215161FI | Tire 21.5 x 16.1 - 10 plys | opt. | opt. |
| 36 | 110-00391 | Clevis pin 1 1/2" dia. x 6 1/2" lg | 2 | 2 |
| 37 | Std. | Cotter pin 1/4" dia. x 2 1/2" lg | 2 | 2 |
| 38 | 120-06421 | Frame P-6816 | 1 | 1 |
| 39 | 120-06263 | Front rail (right side) | 1 | 1 |
| 40 | 120-06492 | Rear rail (right side) | 1 | 1 |
| 41 | 110-06471 | Rear fork | 4 | 4 |
| 42 | 300-46520 | Bolt 3/4" NC x 5" + flat washer + nylon locknut | 4 | 4 |
| 43 | 120-06431 | Platform for P-6816 | 1 | 1 |
| 44 | 120-06471 | Rear rail (left side) | 1 | 1 |
| 45 | 130-00701 | Load indicator lever | 1 | 1 |
| 46 | 51435 | Yoke 1/2" NF + nut | 1 | 1 |
| 47 | 300-34400 | Bolt 5/16" NC x 3" lg + nylon locknut | 1 | 1 |
| 48 | Std. | Clevis + cotter pin 3/32" dia. x 3/4" lg | 1 | 1 |
| 49 | 336-40000 | Nut 1/2" NC | 1 | 1 |

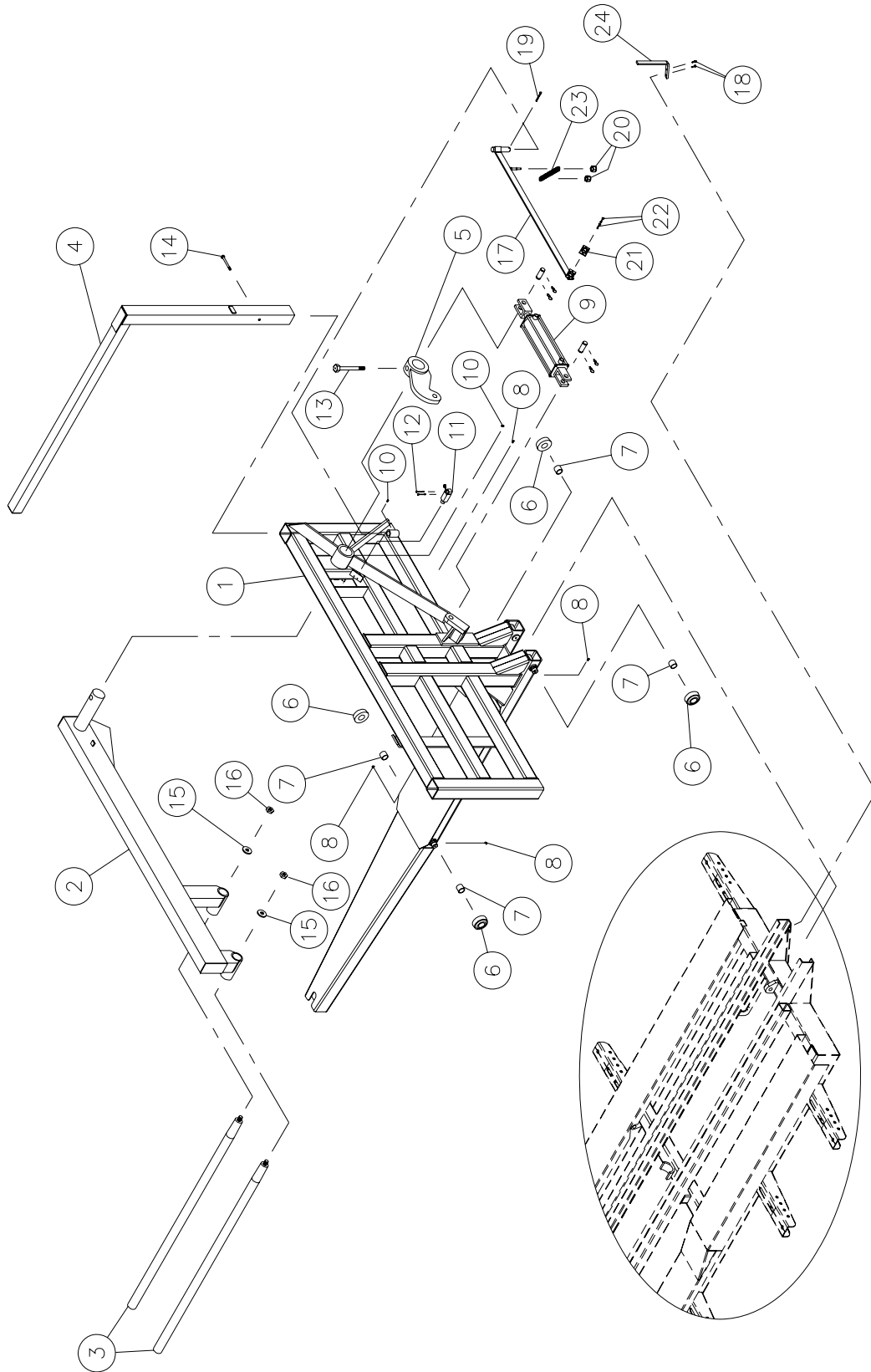


AUTO-LOAD ROUND BALE HANDLER P-6816 & P-6816M (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|-----------|--|--------|---------|
| | | | P-6816 | P-6816M |
| 50 | 30FT84 | Cylinder | 1 | 1 |
| 51 | 300-36250 | Bolt 3/8" NC x 1" lg + nylon locknut | 4 | opt. |
| 52 | 300-40325 | Bolt 1/2" NC x 1 3/4" lg + nylon locknut | 15 | 15 |
| 53 | 130-57741 | Retaining washer | 11 | 11 |
| 54 | 110-36211 | Hoses support | 1 | 1 |
| 55 | 130-00591 | Pusher wheel | 4 | 4 |
| 56 | 160-00811 | Bushing 1 1/4" i.d. x 1 1/2" o.d. x 1 1/4" lg | 4 | 4 |
| 57 | Std. | Grease fitting 1/8 NPT elbow 90 deg. | 4 | 4 |
| 58 | 120-06281 | Pusher | 1 | 1 |
| 59 | 190-10001 | Compression spring | 1 | 1 |
| 60 | 376-44000 | Flat washer 5/8" | 1 | 1 |
| 61 | 346-44000 | Nylon locknut 5/8" NC | 1 | 1 |
| 62 | 40AG60 | Cylinder | 2 | 2 |
| 63 | 110-35391 | Rod for load indicator | 1 | 1 |
| 64 | 300-34220 | Bolt 5/16" NC x 3/4" lg | 1 | 1 |
| 65 | 610-023 | Compression spring 1 3/16" d.e. x 11" lg | 1 | 1 |
| 66 | 110-00521 | Load indicator | 1 | 1 |
| 67 | 150-00281 | Pin | 11 | 11 |
| 68 | 300-46490 | Bolt 3/4" NC x 4 1/2" lg + nylon locknut | 1 | 1 |
| 69 | 110-35221 | Safety prop | 1 | 1 |
| 70 | — | Spring 5/32" wire x 23/32" o.d. x 3 1/4" lg (included with valve #644-10000) | - | 2 |
| 71 | 130-58281 | Valve shroud | 1 | opt. |
| 72 | 110-20501 | Threaded rod 3/8" NC x 9" lg + 2 nylon locknut | 3 | - |
| 72 | 110-20491 | Threaded rod 3/8" NC x 11 1/2" lg + 2 nylon locknut | | |
| | | for third row option (3) | opt. | - |
| 73 | 130-00732 | Solenoid valve support | 2 | - |
| 74 | 18019 | Solenoid valve | 3 | - |
| 74 | 18019 | Additional solenoid valve for third row option (1) | opt. | - |
| 75 | QR-4021 | Quad ring | 2 | - |
| 75 | QR-4021 | Additional quad ring for third row option (1) | opt. | - |
| 76 | 190-04591 | Wire 1/8" x 15" | - | 2 |
| 77 | 346-38000 | Nylon locknut 7/16" NC | - | 2 |
| 78 | 120-00141 | Hitch assy. | 1 | 1 |
| 79 | 300-46400 | Bolt 3/4" NC x 3" lg + nylon locknut | 4 | 4 |
| 80 | 130-21111 | Flat washer 1 13/16" i.d. x 3" o.d. | 1 | 1 |
| 81 | 357-62000 | Castle nut 1 3/4" -5 NC | 1 | 1 |
| 82 | 110-00491 | Swivel hitch | 1 | 1 |
| 83 | 349-38500 | Two-way locknut 7/16" NC | - | 2 |
| 84 | 300-38250 | Bolt 7/16" NC x 1" lg + nylon locknut | - | 4 |
| 85 | 644-10000 | Cushion valve 3/8" NPT | - | 2 |
| 86 | Std. | Cotter pin 1/4" x 3 1/2" lg | 1 | 1 |
| 87 | 120-06481 | Front rail (left side) | 1 | 1 |
| 88 | 300-38250 | Bolt 7/16" NC x 1" lg + nylon locknut | 4 | 4 |
| 89 | 110-35401 | Clevis pin 1 1/4" x 7 1/16" lg | 4 | 4 |
| 90 | 300-32310 | Bolt 1/4" NC x 1 1/2" lg + nylon locknut | 2 | 2 |
| 91 | 140-21201 | Collar | 2 | 2 |
| 92 | 110-35801 | Collar | 1 | 2 |
| 93 | 300-32430 | Bolt 1/4" NC x 3 1/2" lg + nylon locknut | 2 | - |
| 93 | 300-32520 | Bolt 1/4" NC x 5" lg + nylon locknut | - | 2 |
| 94 | 300-36280 | Bolt 3/8" NC x 1 1/4" lg + 2 thin nuts | 1 | 1 |

OPTION 3^e ROW

110-36501

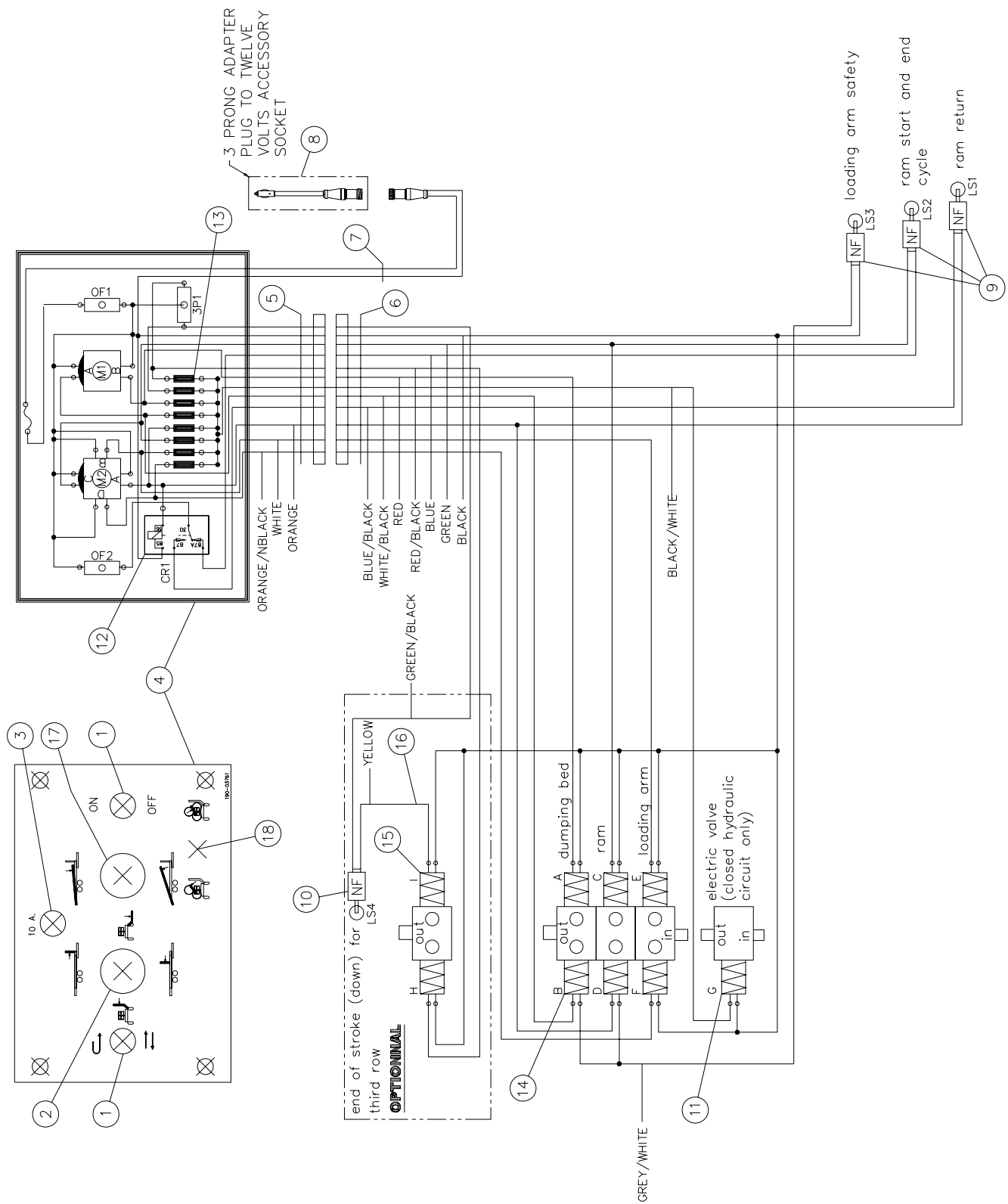


OPTION 3^e ROW

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---|------|
| 1 | 120-06591 | Pusher option third row of bales | 1 |
| 2 | 110-03831 | Loading arm for third row of bales | 1 |
| 3 | 150-12151 | Forks for third row of bales (2) | 2 |
| 4 | 110-03851 | Third bale guard rail | 1 |
| 5 | 110-04761 | Third row lever | 1 |
| 6 | 130-00591 | Pusher wheel | 4 |
| 7 | 160-00811 | Bushing 1 1/4" i.d. x 1 1/2" o.d. x 1 1/4" lg | 4 |
| 8 | Std. | Grease fitting 1/8" NPT 90° | 4 |
| 9 | 30TR12 | Cylinder 30TR12r | 1 |
| 10 | Std. | Grease fittingr 1/4-28 elbow 90° | 2 |
| 11 | 32254 | Limit switch (1) | opt. |
| 12 | 322-20310 | Square headed 10-24 NC x 1 1/2" lg (2) | opt. |
| 13 | 306-50640 | Bolt 1" NC x 7" lg + nylon locknut | 1 |
| 14 | 300-38490 | Bolt 7/16" NC x 4 1/2" lg + nylon locknut | 1 |
| 15 | 130-04911 | Lockwasher 3/4" | 2 |
| 16 | 338-51000 | Nut 3/4" NF | 2 |
| 17 | 110-36532 | Hoses support | 1 |
| 18 | 300-32250 | Bolt 1/4" x 1" lg + nylon locknut + flat washer | 2 |
| 19 | Std. | Cutter pin 3/16" x 2" | 1 |
| 20 | 346-36000 | Nylon locknut 3/8" | 2 |
| 21 | 140-13071 | Hose fastener | 1 |
| 22 | 300-32250 | Bolt 1/4" NC x 1" lg + nylon locknut | 2 |
| 23 | 190-08211 | Extension spring 7/8" o.d. x 5 1/2" lg | 1 |
| 24 | 140-21491 | Hoses stopper | 1 |

ELECTRIC SYSTEM P-6810 P-6812 & P-6816

170-02253

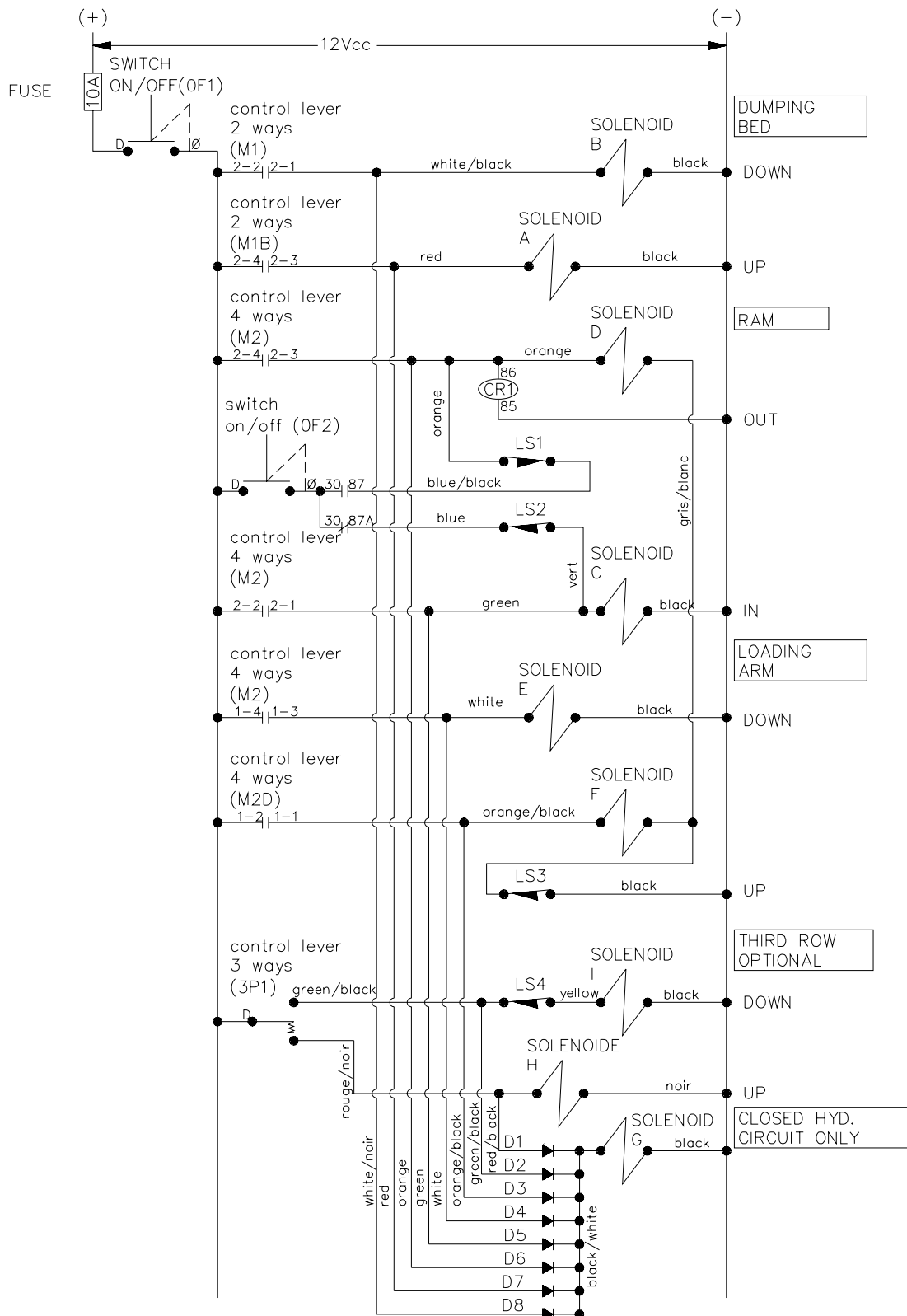


ELECTRIC SYSTEM P-6810 P-6812 & P-6816 (cont'd)

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|------|
| 1 | 36100 | Switch on-off | 2 |
| 2 | 36101 | Control lever 4 ways | 1 |
| 3 | 18005 | Fuse holder 10A | 1 |
| 4 | 36102 | Control box | 1 |
| 5 | 36142 | Harness 12 wires 16GA (12'6" lg) | 1 |
| 6 | 36143 | Harness 12 wires 16GA (15'6" lg) | 1 |
| 7 | 36144 | Harness 12 wires 16GA (5'6" lg) (black: 21'6", orange and blue/black: 49', green and blue: 58'). | 1 |
| 8 | 36145 | 12V accessories socket | 1 |
| 9 | 18017 | Limit switch | 3 |
| 10 | 18017 | Limit switch | opt. |
| 11 | 36112 | Two way valve (closed circuit) | opt. |
| 12 | 36108 | 5 connector relay | 1 |
| 13 | 36109 | Single way diode | 8 |
| 14 | 18019 | Solenoid valve | 3 |
| 15 | 18019 | Solenoid valve | opt. |
| 16 | 190-10121 | Harness 16GA yellow (415" lg for P-6810) | opt. |
| 16 | 190-10131 | Harness 16GA yellow (492" lg for P-6812) | opt. |
| 16 | 190-10141 | Harness 16GA yellow (684" lg for P-6816) | opt. |
| 17 | 36113 | Control lever 2 ways | 1 |
| 18 | 36146 | Switch 3 way | opt. |

ELECTRIC SCHEMA "LADDER" DIAGRAM

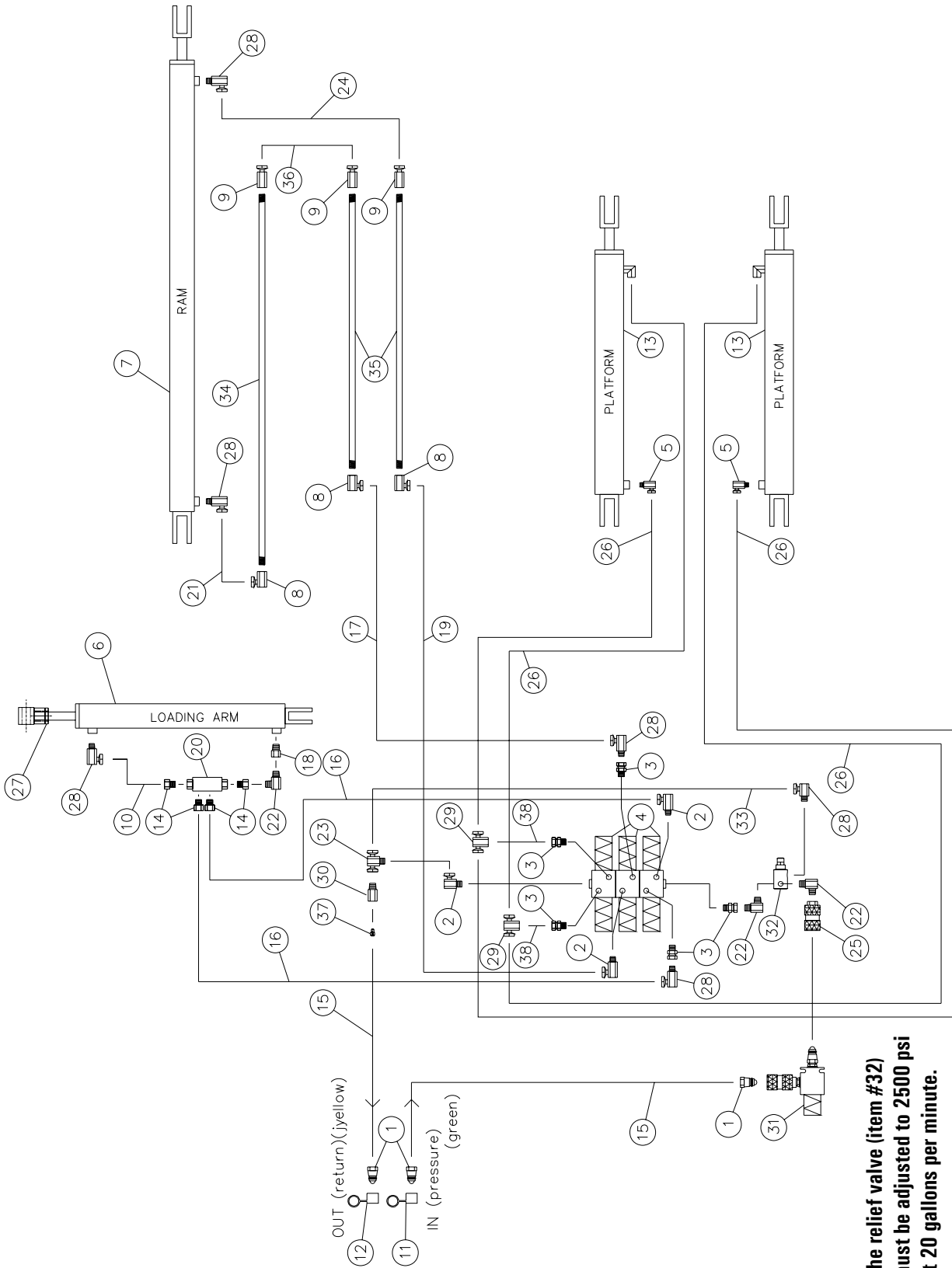
110-29961



8

HYDRAULIC SYSTEM P-6810

170-04593



The relief valve (item #32) must be adjusted to 2500 psi at 20 gallons per minute.



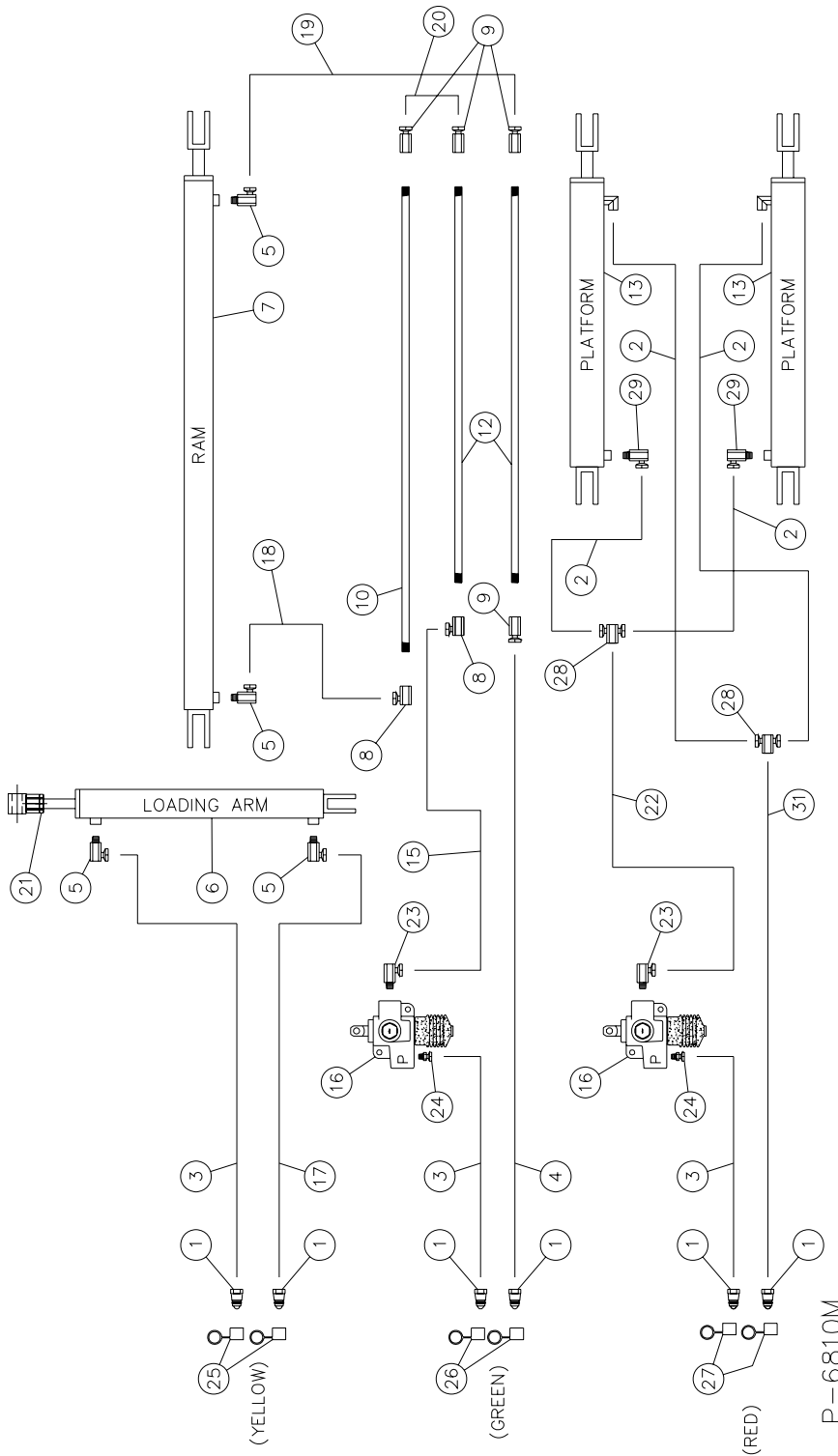
HYDRAULIC SYSTEM P-6810

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|------|
| 1 | S71-4 | Quick coupler 1/2" male | 3 |
| 2 | 9515x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female 90° swivel | 3 |
| 3 | 9315x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female straight swivel | 5 |
| 4 | 18019 | Solenoid valve | 3 |
| 5 | 9405x6x6 | Fitting 3/8" NPSM x 3/8" NPTF 90° swivel | 2 |
| 6 | 30AT20 | Arm cylinder | 1 |
| 7 | 30FT84 | Ram cylinder | 1 |
| 8 | 9455x8x6 | Fitting 3/8" NPTF x 1/2" NPTF 90° swivel | 3 |
| 9 | 9255x8x6 | Fitting 3/8" NPTF x 1/2" NPTF straight swivel | 3 |
| 10 | 190-06131 | Hose 1/2" x 9 1/2" lg + 2 fittings 8U108 | 1 |
| 11 | 36140 | Female cap (green) | 1 |
| 12 | 36139 | Female cap (yellow) | 1 |
| 13 | 30BC28 | Dumping cylinder | 2 |
| 14 | 3269x10x8 | Fitting 7/8" ORB mâle x 1/2" NPTF female | 4 |
| 15 | 190-09561 | Hose 1/2" x 204" lg + 2 fittings 8U108 | 2 |
| 16 | 190-09621 | Hose 1/2" x 30" lg + 2 fittings 8U108 | 2 |
| 17 | 190-10171 | Hose 1/2" x 17" lg + 2 fittings 8U108 | 1 |
| 18 | 190-06121 | Restrictor 1/8" | 1 |
| 19 | 190-10181 | Hose 1/2" x 16" lg + 2 fittings 8U108 | 1 |
| 20 | 36137 | Stop valve | 1 |
| 21 | 190-09611 | Hose 1/2" x 27" lg + 2 fittings 8U108 | 1 |
| 22 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | 3 |
| 23 | 9457x8x8 | Fitting en «T» 1/2" NPSM female swivel x 1/2" NPTF male | 1 |
| 24 | 190-09651 | Hose 1/2" x 98" lg + 2 fittings 8U108 | 1 |
| 25 | S75-4 | Quick coupler 1/2" female | 1 |
| 26 | 190-10231 | Hose 3/8" x 50" lg + 2 fittings 6U106 | 4 |
| 27 | 190-00241 | Locknut 1 1/2" - 12 x 1/2" lg | 1 |
| 28 | 9405x8x8 | Fitting 1/2" NPSM femelle tournant x 1/2" NPTF mâle 90° | 6 |
| 29 | 9456x6x6 | "T" fitting 3/8" NPSM female swivel x 3/8" NPTF female | 2 |
| 30 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | 1 |
| 31 | 110-00651 | Valve for closed center hydraulic system | opt. |
| 32 | RL50-1500 | Relief valve | 1 |
| 33 | 190-03671 | Hose 1/2" x 22" lg + 2 fittings 8U108 | 1 |
| 34 | 160-22511 | Hydraulic line 3/8" x 142" lg | 1 |
| 35 | 160-23281 | Hydraulic line 3/8" x 79" lg | 2 |
| 36 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 1 |
| 37 | 190-11051 | Restrictor (hole 1/32") | 1 |
| 38 | 190-11081 | Hose 3/8" x 18" lg + fitting 6U106 + fitting 6U108 | 2 |

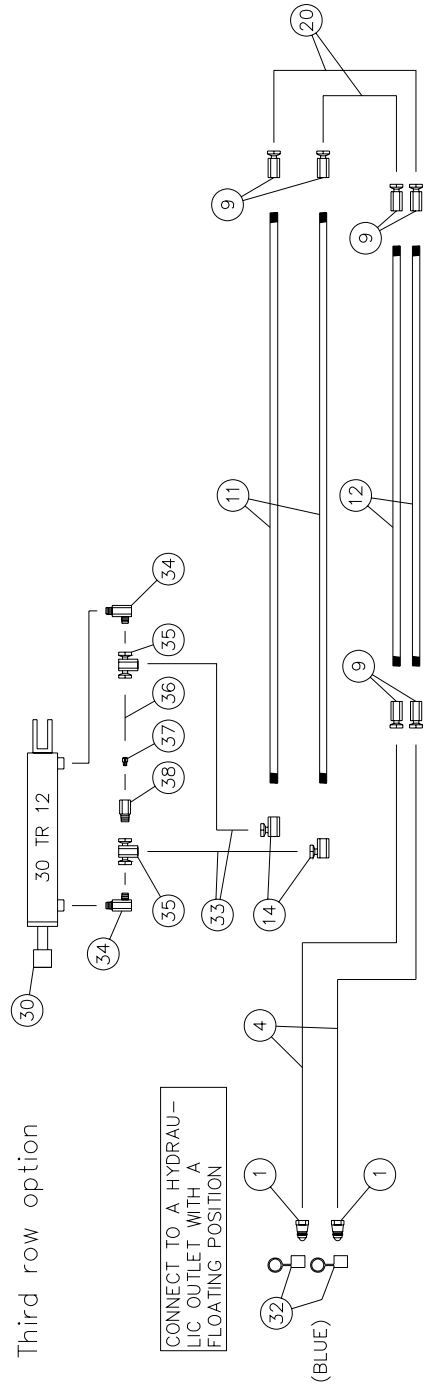


HYDRAULIC SYSTEM P-6810M & THIRD ROW OPTION

170-04603



Third row option



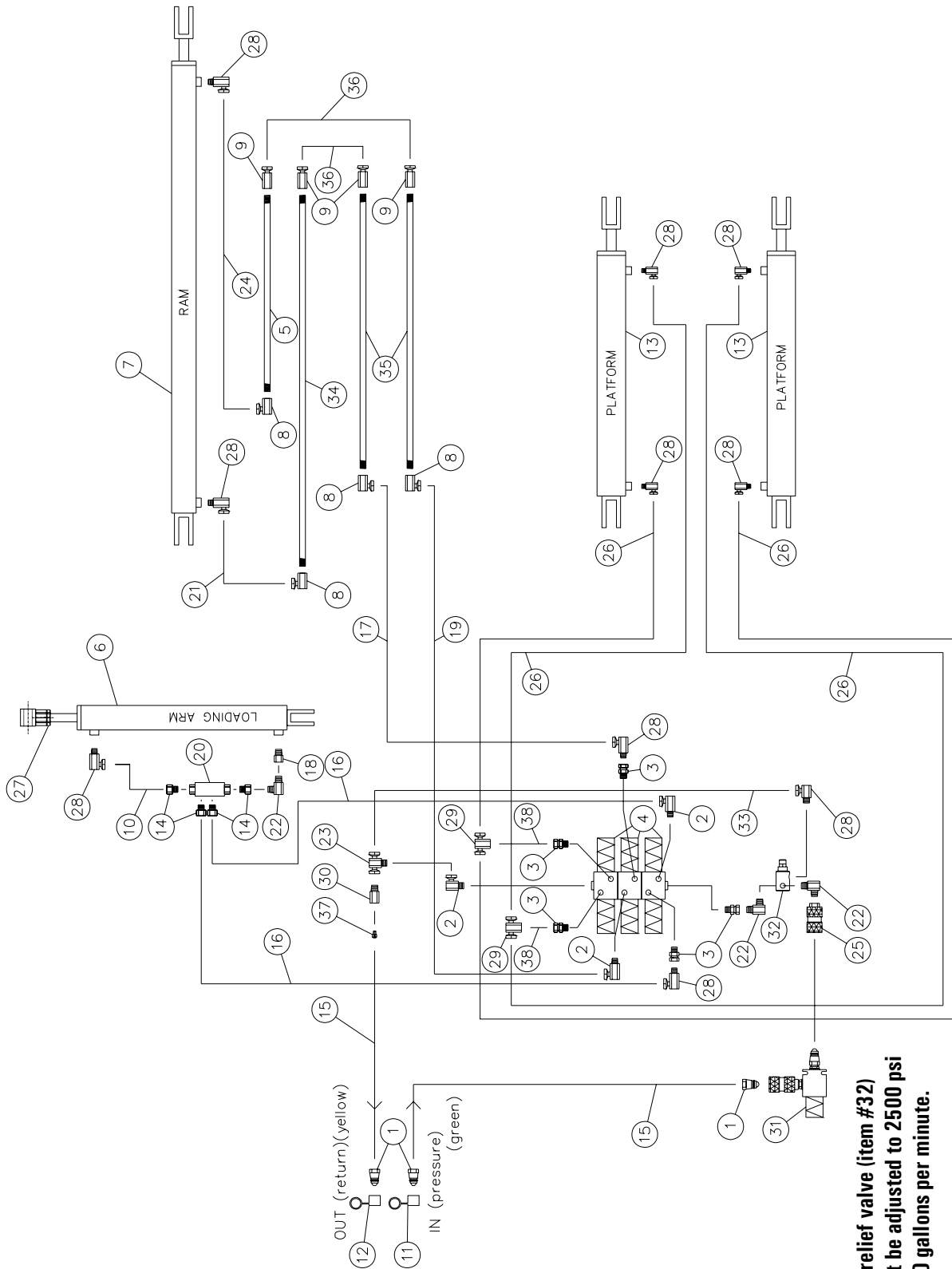
HYDRAULIC SYSTEM P-6810M & THIRD ROW OPTION

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---|---------------------|
| | | | P-6810M OPTION |
| 1 | S71-4 | Quick coupler 1/2" male | 6 2 |
| 2 | 190-10231 | Hose 3/8" x 50" lg + 2 fittings 6U106 | 4 - |
| 3 | 190-04531 | Hose 1/2" x 232" lg + 2 fittings 8U108 | 3 - |
| 4 | 190-10201 | Hose 1/2" x 196" lg + 2 fittings 8U108 | 1 2 |
| 5 | 9405x8x8 | Fitting 1/2" NPSM female swivel x 1/2" NPTF male 90° | 4 - |
| 6 | 30AT20 | Arm cylinder | 1 - |
| 7 | 30FT84 | Ram cylinder | 1 - |
| 8 | 9455x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female 90° | 2 - |
| 9 | 9255x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female straight | 4 6 |
| 10 | 160-22511 | Hydraulic line 3/8" x 142" lg | 1 - |
| 11 | 160-23091 | Ligne hydraulique 3/8" x 156 3/8" lg | - 2 |
| 12 | 160-23281 | Hydraulic line 3/8" x 79" lg | 2 2 |
| 13 | 30 BC 28 | Dumping cylinder | 2 - |
| 14 | 9455x6x6 | Adaptateur 3/8" NPSM female swivel x 3/8" NPTF female | - 2 |
| 15 | 190-10191 | Hose 1/2" x 46" lg + 2 fittings 8U108 | 1 - |
| 16 | 644-10000 | Cushion valve 3/8" NPT | 2 - |
| 17 | 190-04561 | Hose 1/2" x 212" lg + 2 fittings 8U108 | 1 - |
| 18 | 190-09611 | Hose 1/2" x 27" lg + 2 fittings 8U108 | 1 - |
| 19 | 190-09651 | Hose 1/2" x 98" lg + 2 fittings 8U108 | 1 - |
| 20 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 1 2 |
| 21 | 190-03721 | Lock nut 1 1/2" -12 x 1/2" lg | 1 - |
| 22 | 190-10211 | Hose 1/2" x 40" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 - |
| 23 | 9405x8x6 | Fitting 1/2" NPSM femelle swivel x 3/8" NPTF male 90° | 2 - |
| 24 | 9205x8x6 | Fitting 1/2" NPSM femelle swivel x 3/8" NPTF male straight | 2 - |
| 25 | 36139 | Female cap (yellow) | 2 - |
| 26 | 36140 | Female cap (green) | 2 - |
| 27 | 36138 | Female cap (red) | 2 - |
| 28 | 9456x6x6 | Fitting en «T» 3/8" NPSM female swivel x 3/8" NPTF female | 2 - |
| 29 | 9405x6x6 | Fitting 3/8" NPSM female swivel x 3/8" NPTF male 90° | 2 - |
| 30 | 30TR12 | Cylinder for 3 rd row option | - 1 |
| 31 | 190-10221 | Hose 1/2" x 232" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 - |
| 32 | 36141 | Female cap (blue) | - 2 |
| 33 | 190-10012 | Hose 3/8" x 87" lg + 1 fitting 6U106 + 1 fitting 6U108 | - 2 |
| 34 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | - 2 |
| 35 | 9456x8x8 | "T" fitting 1/2" NPSM female swivel x 1/2" NPTF female | - 2 |
| 36 | 190-11111 | Hose 3/8" x 7" lg + 2 fittings 6U108 | - 1 |
| 37 | 03-0274A | Check valve | - 1 |
| 38 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | - 1 |



HYDRAULIC SYSTEM P-6812

170-04613



The relief valve (item #32) must be adjusted to 2500 psi at 20 gallons per minute.



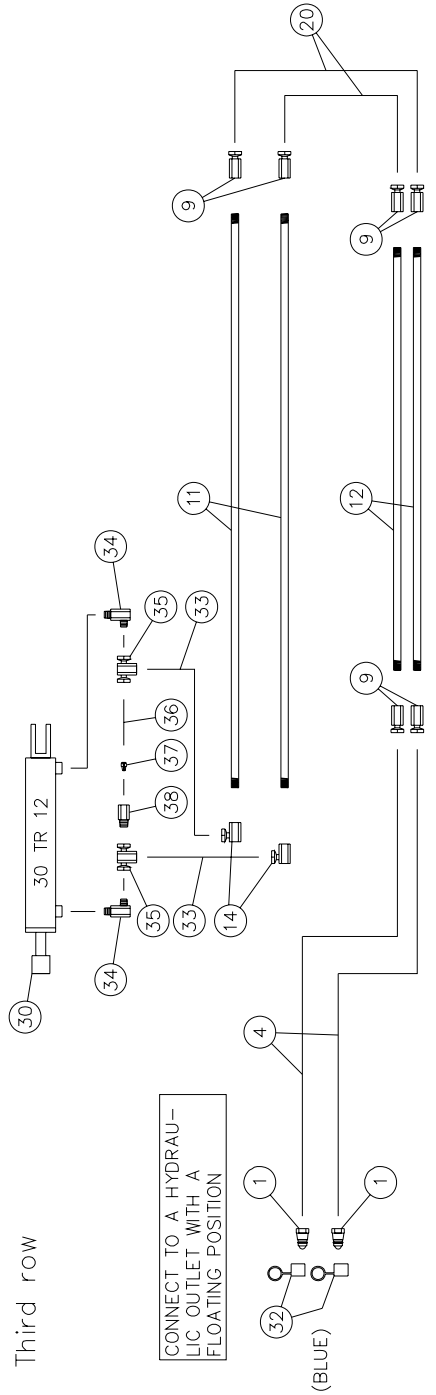
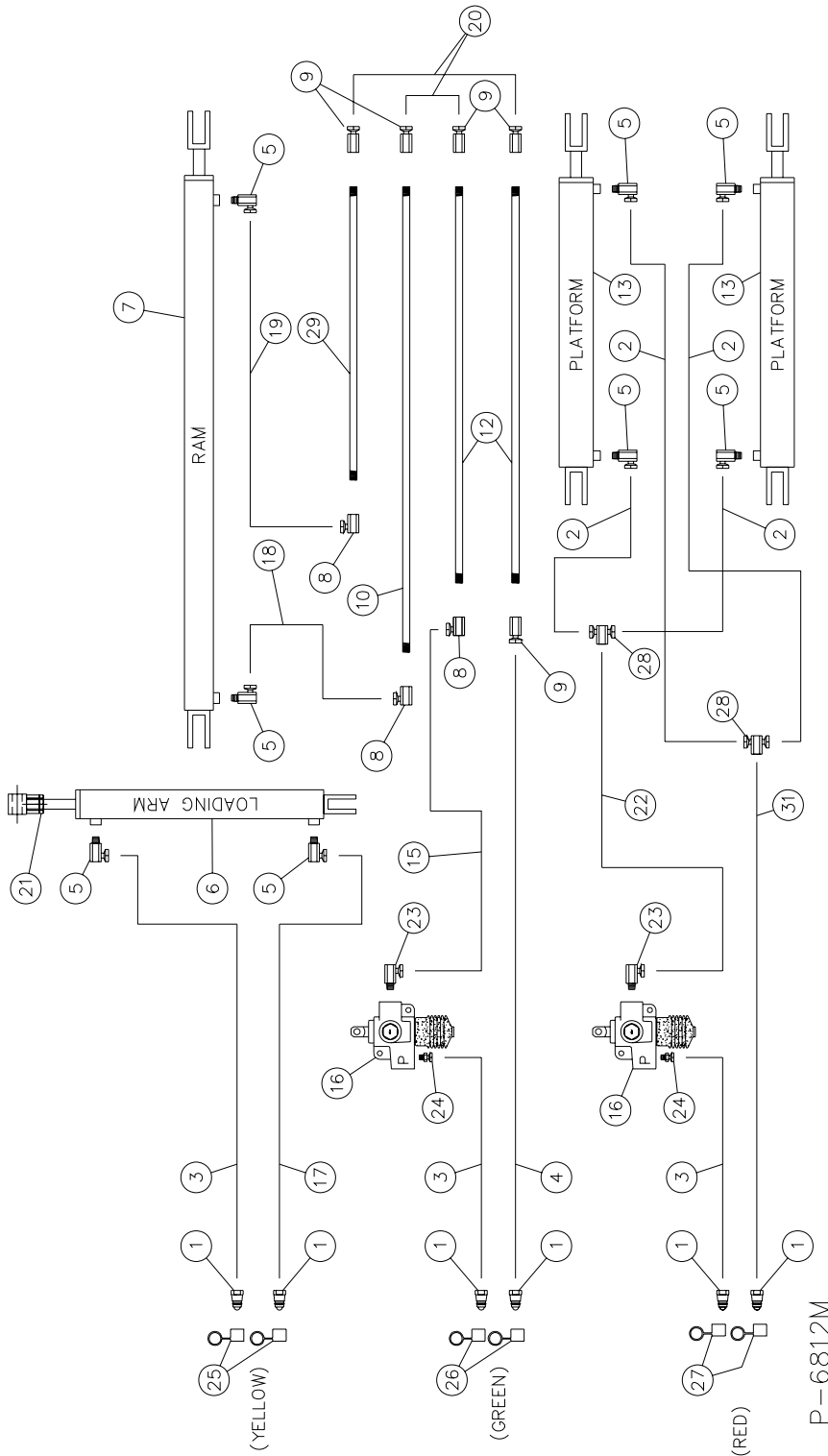
HYDRAULIC SYSTEM P-6812

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|------|
| 1 | S71-4 | Quick coupler 1/2" male | 3 |
| 2 | 9515x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female swivel 90° | 3 |
| 3 | 9315x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female swivel droit | 5 |
| 4 | 18019 | Solenoïd valve | 3 |
| 5 | 160-22491 | Ligne hydraulique 3/8" x 70 1/4" lg | 1 |
| 6 | 30AT20 | Arm cylinder | 1 |
| 7 | 30FT84 | Ram cylinder | 1 |
| 8 | 9455x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female 90° | 4 |
| 9 | 9255x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female droit | 4 |
| 10 | 190-06131 | Hose 1/2" x 9 1/2" lg + 2 fittings 8U108 | 1 |
| 11 | 36140 | Female cap (green) | 1 |
| 12 | 36139 | Female cap (yellow) | 1 |
| 13 | 35BS35 | Dumping cylinder | 2 |
| 14 | 3269x10x8 | Fitting 7/8" ORB male x 1/2" NPTF female | 4 |
| 15 | 190-09561 | Hose 1/2" x 204" lg + 2 fittings 8U108 | 2 |
| 16 | 190-09621 | Hose 1/2" x 30" lg + 2 fittings 8U108 | 2 |
| 17 | 190-10171 | Hose 1/2" x 17" lg + 2 fittings 8U108 | 1 |
| 18 | 190-06121 | Restrictor 1/8" | 1 |
| 19 | 190-10181 | Hose 1/2" x 16" lg + 2 fittings 8U108 | 1 |
| 20 | 36137 | Stop valve | 1 |
| 21 | 190-09611 | Hose 1/2" x 27" lg + 2 fittings 8U108 | 1 |
| 22 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | 3 |
| 23 | 9457x8x8 | Fitting en «T» 1/2" NPSM female swivel x 1/2" NPTF male | 1 |
| 24 | 190-09721 | Hose 1/2" x 45 1/2" lg + 2 fittings 8U108 | 1 |
| 25 | S75-4 | Fitting rapide 1/2" female | 1 |
| 26 | 190-10241 | Hose 3/8" x 99" lg + 1 fitting 6U108 & 1 fitting 6U106 | 4 |
| 27 | 190-00241 | Locknut 1 1/2" - 12 x 1/2" lg | 1 |
| 28 | 9405x8x8 | Fitting 1/2" NPSM female swivel x 1/2" NPTF male 90° | 10 |
| 29 | 9456x6x6 | "T" fitting 3/8" NPSM female swivel x 3/8" NPTF female | 2 |
| 30 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | 1 |
| 31 | 110-00651 | Valve for closed center hydraulic system | opt. |
| 32 | RL50-1500 | Relief valve | 1 |
| 33 | 190-03671 | Hose 1/2" x 22" lg + 2 fittings 8U108 | 1 |
| 34 | 160-22111 | Hydraulic line 3/8" x 180 5/8" lg | 1 |
| 35 | 160-23291 | Hydraulic line 3/8" x 117 3/8" lg | 2 |
| 36 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 2 |
| 37 | 190-11051 | Restrictor (hole 1/32") | 1 |
| 38 | 190-11081 | Hose 3/8" x 18" lg + 1 fitting 6U106 + fitting 6U108 | 2 |



HYDRAULIC SYSTEM P-6812M & THIRD ROW OPTION

170-04623



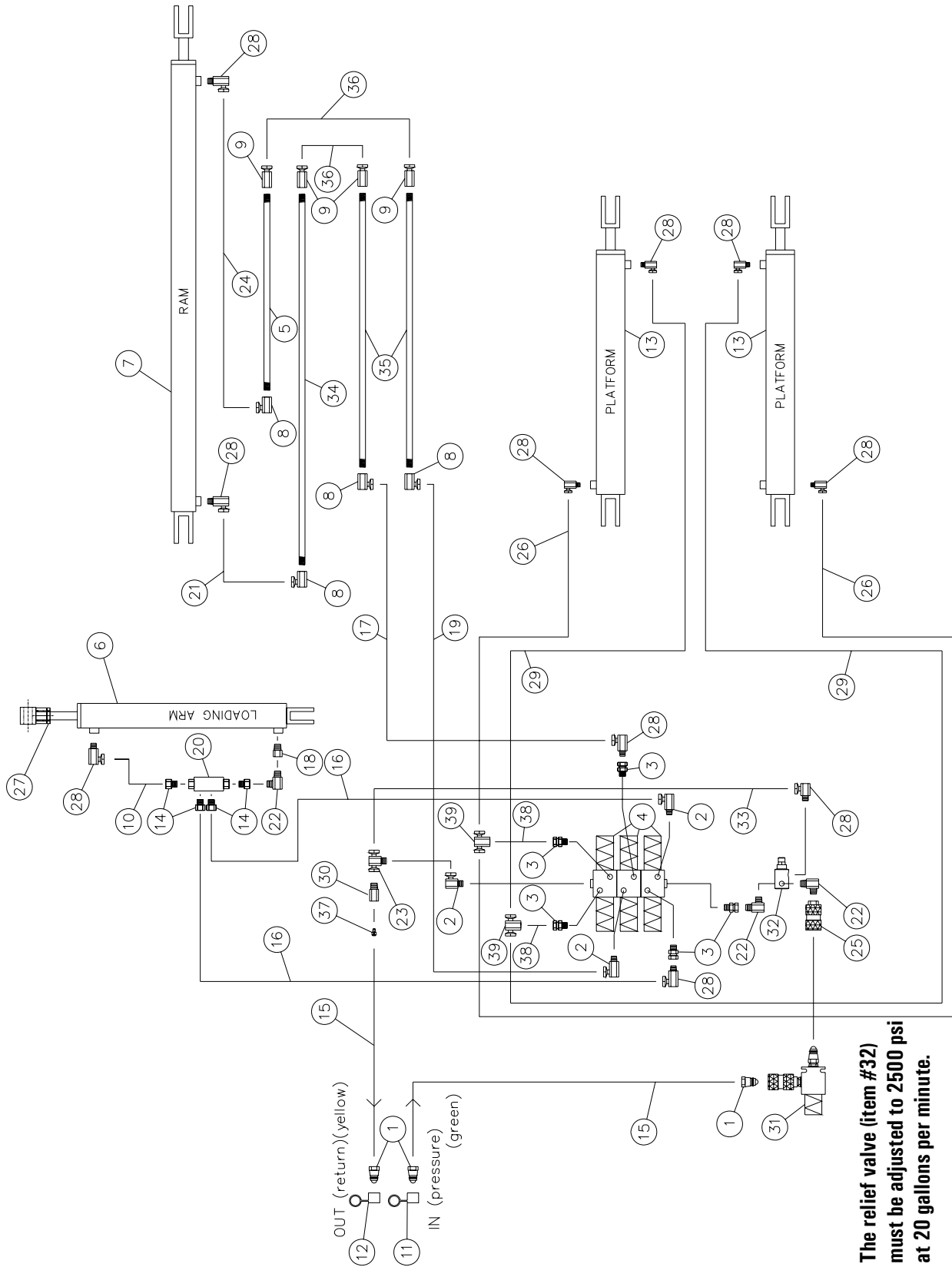
HYDRAULIC SYSTEM P-6812M & THIRD ROW OPTION (cont'd)

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|-------------------|
| | | | P-6812M OPTION |
| 1 | S71-4 | Quick coupler 1/2" male | 6 2 |
| 2 | 190-10241 | Hose 3/8" x 99" lg + 1 fitting 6U106 + 1 fitting 6U108 | 4 - |
| 3 | 190-04531 | Hose 1/2" x 232" lg + 2 fittings 8U108 | 3 - |
| 4 | 190-10201 | Hose 1/2" x 196" lg + 2 fittings 8U108 | 1 2 |
| 5 | 9405x8x8 | Fitting 1/2" NPSM female swivel x 1/2" NPTF male 90° | 8 - |
| 6 | 30AT20 | Arm cylinder | 1 - |
| 7 | 30FT84 | Ram cylinder | 1 - |
| 8 | 9455x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female 90° | 3 - |
| 9 | 9255x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female droit | 5 6 |
| 10 | 160-22111 | Hydraulic line 3/8" x 180 5/8" lg | 1 - |
| 11 | 160-23081 | Hydraulic line 3/8" x 195" lg | - 2 |
| 12 | 160-23291 | Hydraulic line 3/8" x 117 3/8" lg | 2 2 |
| 13 | 35BS35 | Dumping cylinder | 2 - |
| 14 | 9455x6x6 | Fitting 3/8" NPSM female swivel x 3/8" NPTF female | - 2 |
| 15 | 190-10191 | Hose 1/2" x 46" lg + 2 fittings 8U108 | 1 - |
| 16 | 644-10000 | Cushion valve 3/8" NPT | 2 - |
| 17 | 190-04561 | Hose 1/2" x 212" lg + 2 fittings 8U108 | 1 - |
| 18 | 190-09611 | Hose 1/2" x 27" lg + 2 fittings 8U108 | 1 - |
| 19 | 190-09721 | Hose 1/2" x 45 1/2" lg + 2 fittings 8U108 | 1 - |
| 20 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 2 2 |
| 21 | 190-03721 | Lock nut 1 1/2" -12 x 1/2" lg | 1 - |
| 22 | 190-10211 | Hose 1/2" x 40" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 - |
| 23 | 9405x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF male 90° | 2 - |
| 24 | 9205x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF male droit | 2 - |
| 25 | 36139 | Female cap (yellow) | 2 - |
| 26 | 36140 | Female cap (green) | 2 - |
| 27 | 36138 | Female cap (red) | 2 - |
| 28 | 9456x6x6 | "T" fitting 3/8" NPSM female swivel x 3/8" NPTF female | 2 - |
| 29 | 160-22491 | Hydraulic line 3/8" x 70 1/4" lg | 1 - |
| 30 | 30TR12 | Cylinder for 3 rd row option | - 1 |
| 31 | 190-10221 | Hose 1/2" x 232" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 - |
| 32 | 36141 | Female cap (blue) | - 2 |
| 33 | 190-10012 | Hose 3/8" x 87" lg + 1 fitting 6U106 + 1 fitting 6U108 | - 2 |
| 34 | 3529x8x8 | Fitting 1/2" NPTF mâle x 1/2" NPTF mâle 90° | - 2 |
| 35 | 9456x8x8 | "T" fitting 1/2" NPSM female swivel x 1/2" NPTF female | - 2 |
| 36 | 190-11111 | Hose 3/8" x 7" lg + 2 fitting 6U108 | - 1 |
| 37 | 03-0274A | Check valve | - 1 |
| 38 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | - 1 |



HYDRAULIC SYSTEM P-6816

170-04633



The relief valve (item #32) must be adjusted to 2500 psi at 20 gallons per minute.



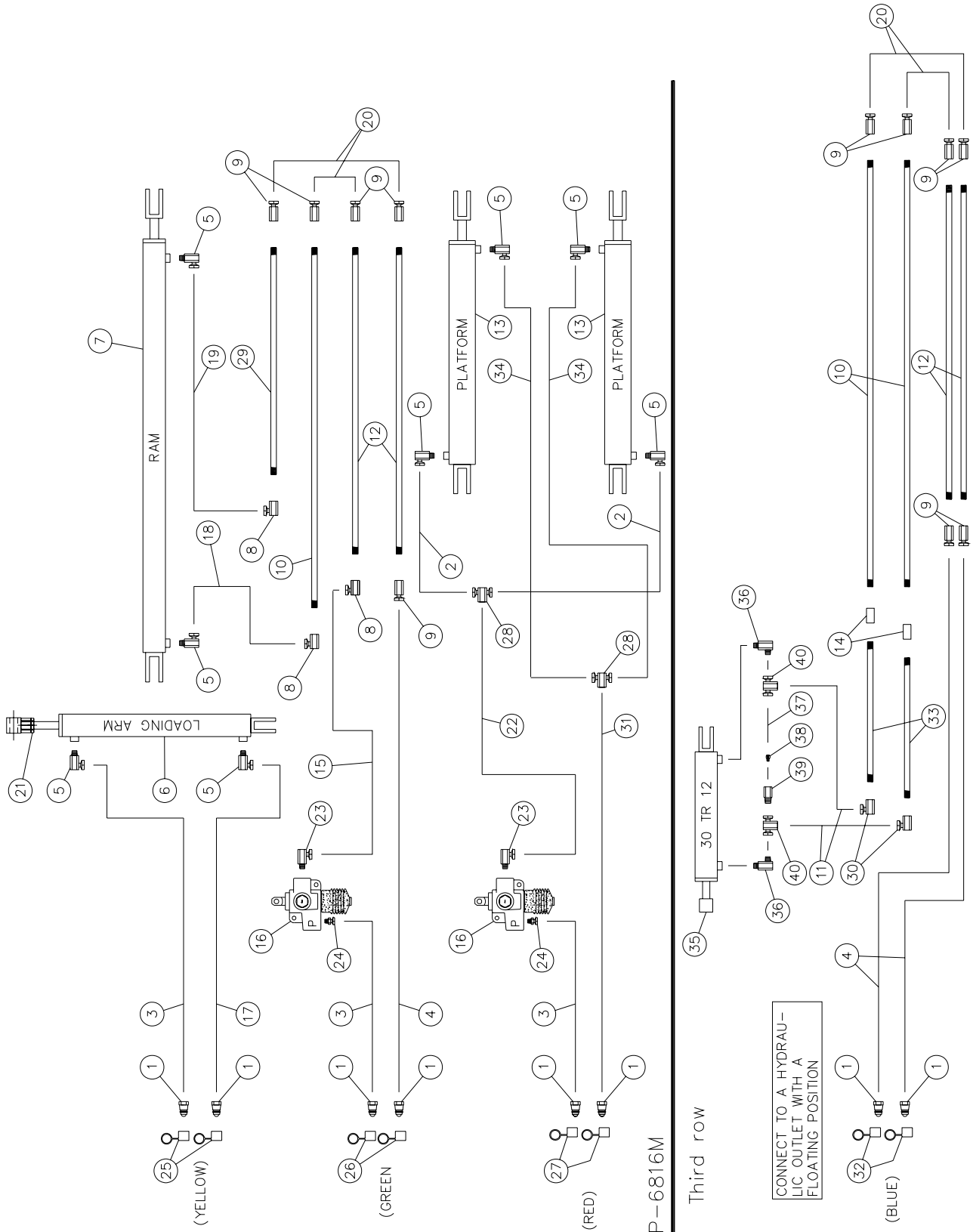
HYDRAULIC SYSTEM P-6816

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---|------|
| 1 | S71-4 | Fitting rapide 1/2" male | 3 |
| 2 | 9515x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female swivel 90° | 3 |
| 3 | 9315x8x8 | Fitting 3/4" ORB male x 1/2" NPSM female swivel straight | 5 |
| 4 | 18019 | Solenoïd valve | 3 |
| 5 | 160-22551 | Hydraulic line 3/8" x 183" lg | 1 |
| 6 | 30AT20 | Arm cylinder | 1 |
| 7 | 30FT84 | Ram cylinder | 1 |
| 8 | 9455x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female 90° | 4 |
| 9 | 9255x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female straight | 4 |
| 10 | 190-06131 | Hose 1/2" x 9 1/2" lg + 2 fittings 8U108 | 1 |
| 11 | 36140 | Female cap (green) | 1 |
| 12 | 36139 | Female cap (yellow) | 1 |
| 13 | 40AG60 | Dumping cylinder | 2 |
| 14 | 3269x10x8 | Fitting 7/8" ORB male x 1/2" NPTF female | 4 |
| 15 | 190-09561 | Hose 1/2" x 204" lg + 2 fittings 8U108 | 2 |
| 16 | 190-09621 | Hose 1/2" x 30" lg + 2 fittings 8U108 | 2 |
| 17 | 190-10171 | Hose 1/2" x 17" lg + 2 fittings 8U108 | 1 |
| 18 | 190-06121 | Restrictor 1/8" | 1 |
| 19 | 190-10181 | Hose 1/2" x 16" lg + 2 fittings 8U108 | 1 |
| 20 | 36137 | Stop valve | 1 |
| 21 | 190-09821 | Hose 1/2" x 52" lg + 2 fittings 8U108 | 1 |
| 22 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | 3 |
| 23 | 9457x8x8 | Fitting en «T» 1/2" NPSM female swivel x 1/2" NPTF male | 1 |
| 24 | 190-09811 | Hose 1/2" x 30" lg + 2 fittings 8U108 | 1 |
| 25 | S75-4 | Fitting rapide 1/2" female | 1 |
| 26 | 190-10251 | Hose 3/8" x 162" lg + 1 fitting 6U106 + 1 fitting 6U108 | 2 |
| 27 | 190-00241 | Locknut 1 1/2" - 12 x 1/2" lg | 1 |
| 28 | 9405x8x8 | Fitting 1/2" NPSM female swivel x 1/2" NPTF male 90° | 10 |
| 29 | 190-11061 | Hose 3/8" x 147" lg + 1 fitting 6U106 + 1 fitting 6U108 | 2 |
| 30 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | 1 |
| 31 | 110-00651 | Valve for closed center hydraulic system | opt. |
| 32 | RL50-1500 | Relief valve | 1 |
| 33 | 190-03671 | Hose 1/2" x 22" lg + 2 fittings 8U108 | 1 |
| 34 | 160-22561 | Hydraulic line 3/8" x 252" lg | 1 |
| 35 | 160-23301 | Hydraulic line 3/8" x 213 7/16" lg | 2 |
| 36 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 2 |
| 37 | 190-11051 | Restrictor (hole 1/32") | 1 |
| 38 | 190-11081 | Hose 3/8" x 18" lg + 1 fitting 6U106 + 1 fitting 6U108 | 2 |
| 39 | 9456x6x6 | "T" fitting 3/8" NPSM female swivel x 3/8" NPTF female | 2 |



HYDRAULIC SYSTEM P-6816M & THIRD ROW OPTION

170-04643

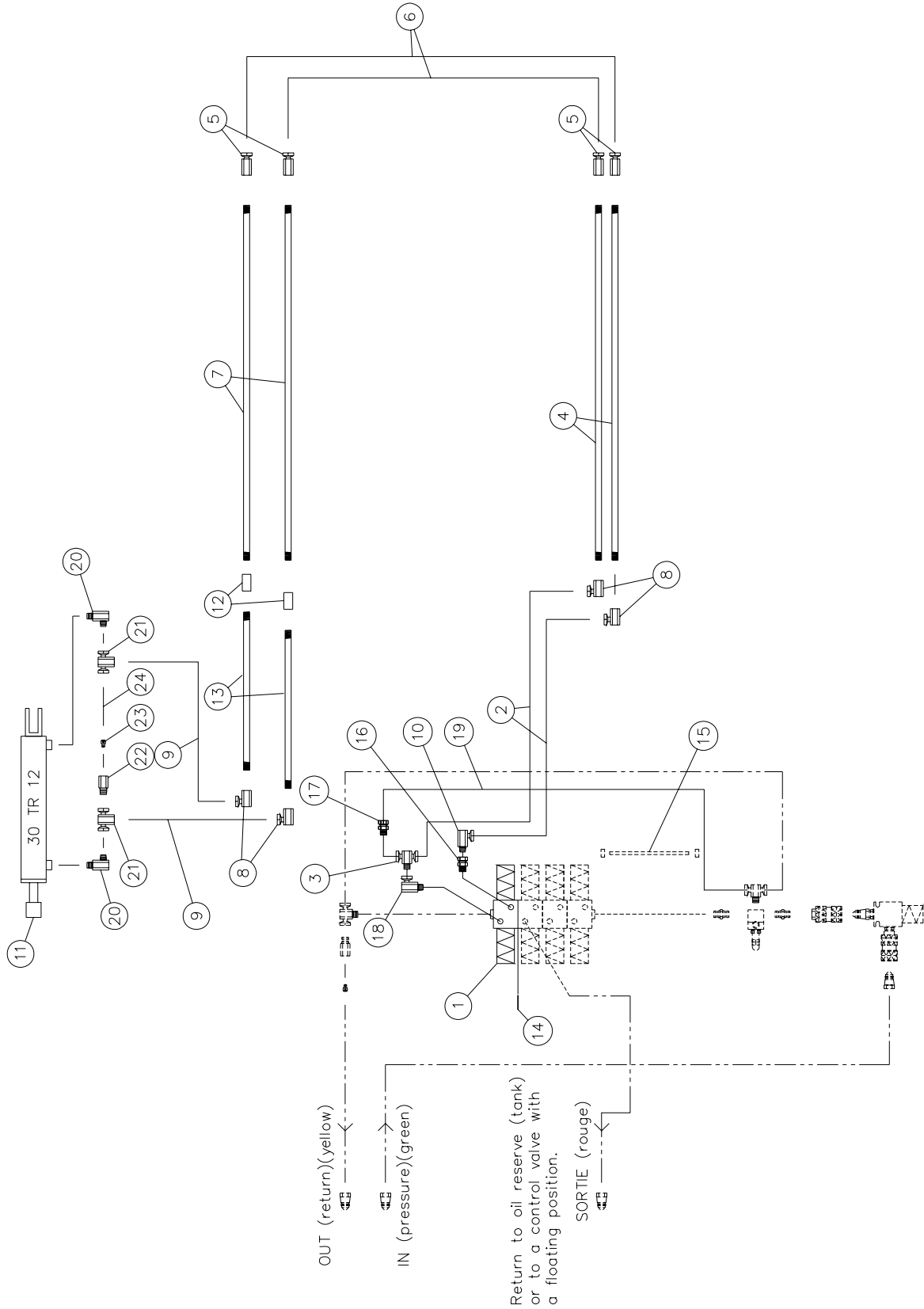


HYDRAULIC SYSTEM P-6816M & THIRD ROW OPTION (cont'd)

| REF. | PART # | DESCRIPTION | QTY | |
|------|-----------|---|---------|--------|
| | | | P-6816M | OPTION |
| 1 | S71-4 | Quick coupler 1/2" male | 6 | 2 |
| 2 | 190-10251 | Hose 3/8" x 162" lg + 1 fitting 6U106 + 1 fitting 6U108 | 2 | - |
| 3 | 190-04531 | Hose 1/2" x 232" lg + 2 fittings 8U108 | 3 | - |
| 4 | 190-10201 | Hose 1/2" x 196" lg + 2 fittings 8U108 | 1 | 2 |
| 5 | 9405x8x8 | Fitting 1/2" NPSM female swivel x 1/2" NPTF male 90° | 8 | - |
| 6 | 30AT20 | Arm cylinder | 1 | - |
| 7 | 30FT84 | Ram cylinder | 1 | - |
| 8 | 9455x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female 90° | 3 | - |
| 9 | 9255x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF female straight | 5 | 6 |
| 10 | 160-22561 | Hydraulic line 3/8" x 252" lg | 1 | 2 |
| 11 | 190-10012 | Hose 3/8" x 87" lg + 1 fitting 6U106 + 1 fitting 6U108 | - | 2 |
| 12 | 160-23301 | Hydraulic line 3/8" x 213 7/16" lg | 2 | 2 |
| 13 | 40AG60 | Dumping cylinder | 2 | - |
| 14 | Std. | Union 3/8" NPT | - | 2 |
| 15 | 190-10191 | Hose 1/2" x 46" lg + 2 fittings 8U108 | 1 | - |
| 16 | 644-10000 | Cushion valve 3/8" NPT | 2 | - |
| 17 | 190-04561 | Hose 1/2" x 212" lg + 2 fittings 8U108 | 1 | - |
| 18 | 190-09821 | Hose 1/2" x 52" lg + 2 fittings 8U108 | 1 | - |
| 19 | 190-09811 | Hose 1/2" x 30" lg + 2 fittings 8U108 | 1 | - |
| 20 | 190-00132 | Hose 1/2" x 18" lg + 2 fittings 8U108 | 2 | 2 |
| 21 | 190-03721 | Lock nut 1 1/2" -12 x 1/2" lg | 1 | - |
| 22 | 190-10211 | Hose 1/2" x 40" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 | - |
| 23 | 9405x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF male 90° | 2 | - |
| 24 | 9205x8x6 | Fitting 1/2" NPSM female swivel x 3/8" NPTF male straight | 2 | - |
| 25 | 36139 | Female cap (yellow) | 2 | - |
| 26 | 36140 | Female cap (green) | 2 | - |
| 27 | 36138 | Female cap (red) | 2 | - |
| 28 | 9456x6x6 | "T" fitting 3/8" NPSM female swivel x 3/8" NPTF female | 2 | - |
| 29 | 160-22551 | Hydraulic line 3/8" x 183" lg | 1 | - |
| 30 | 9455x6x6 | Fitting 3/8" NPSM female swivel x 3/8" NPTF female | - | 2 |
| 31 | 190-10221 | Hose 1/2" x 232" lg + 1 fitting 8U108 + 1 fitting 8U106 | 1 | - |
| 32 | 36141 | Female cap (blue) | - | 2 |
| 33 | 160-23101 | Hydraulic line 3/8" x 38 3/4" lg | - | 2 |
| 34 | 190-11061 | Hose 3/8" x 147" lg + 1 fitting 6U106 + 1 fitting 6U108 | - | 1 |
| 35 | 30TR12 | Cylinder for 3 rd row option | - | 1 |
| 36 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | - | 2 |
| 37 | 190-11111 | Hose 3/8" x 7" lg + 2 fittings 6U108 | - | 2 |
| 38 | 03-0274A | Check valve | - | 1 |
| 39 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | - | 1 |
| 40 | 9456x8x8 | "T" fitting 1/2" NPSM female swivel x 1/2" NPTF female | - | 2 |

HYDRAULIC SYSTEM FOR 3rd ROW OPTION P-6810, P-6812 & P-6816

170-04721R1

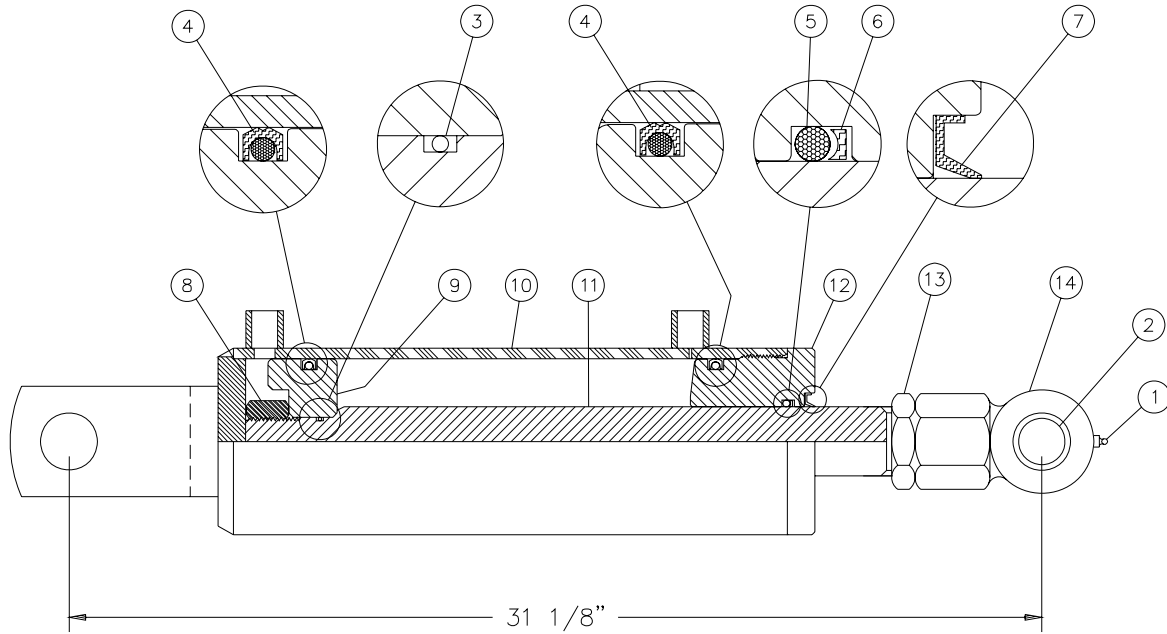


HYDRAULIC SYSTEM FOR 3rd ROW OPTION P-6810, P-6812 & P-6816

| REF. | PART # | DESCRIPTION | QTY | | |
|------|-------------|---|--------|--------|--------|
| | | | P-6810 | P-6812 | P-6816 |
| 1 | 18019 | Solenoid valve | 1 | 1 | 1 |
| 2 | 190-10031 | Hose 1/2" x 49" lg + 1 fitting 8U106 + 1 fitting 8U-108 | 2 | 2 | 2 |
| 3 | 15855x8x8x8 | "T" 1/2" | 1 | 1 | 1 |
| 4 | 160-23281 | Hydraulic line 3/8" x 79" lg | 2 | - | - |
| 4 | 160-23291 | Hydraulic line 3/8" x 117 3/8" lg | - | 2 | - |
| 4 | 160-23301 | Hydraulic line 3/8" x 213 7/16" lg | - | - | 2 |
| 5 | 9255x8x6 | Fitting 3/8" NPTF x 1/2" NPTF straight swivel | 4 | 4 | 4 |
| 6 | 190-00132 | Hose 1/2" x 18" lg + 2 fitting 8U108 | 2 | 2 | 2 |
| 7 | 160-23091 | Hydraulic line 3/8" x 156 3/8" lg | 2 | - | - |
| 7 | 160-23081 | Hydraulic line 3/8" x 195" lg | - | 2 | - |
| 7 | 160-22561 | Hydraulic line 3/8" x 252" lg | - | - | 2 |
| 8 | 9455x6x6 | Fitting 3/8" NPTF x 3/8" NPTF 90° swivel | 4 | 4 | 4 |
| 9 | 190-10012 | Hose 3/8" x 87" lg + 1 fitting 6U106 + 1 fitting 6U108 | 2 | 2 | 2 |
| 10 | 9405x8x8 | Fitting 1/2" NPTM x 1/2" NPTF 90° swivel | 1 | 1 | 1 |
| 11 | 30TR12 | Cylinder for 3 rd row option | 1 | 1 | 1 |
| 12 | Std. | Union 3/8" NPT | - | - | 2 |
| 13 | 160-23101 | Hydraulic line 3/8" x 38 3/4" lg | - | - | 2 |
| 14 | Std. | Quad ring 1 1/32" o.d. x 29/32" i.d. x 1/16" | 1 | 1 | 1 |
| 15 | 190-00781 | Threaded rod 3/8" x 11 1/2" lg | 3 | 3 | 3 |
| 16 | 9315x8x8 | Fitting F 3/4"-16 x 1/2"-14 | 1 | 1 | 1 |
| 17 | HSR882 | Modified restrictor à 3/16" | 1 | 1 | 1 |
| 18 | 9515x8x8 | Fitting 3/4"-16 x 1/2"-14 | 1 | 1 | 1 |
| 19 | 190-10041 | Hose 1/2" x 36" lg + 2 fitting 8U108 | 1 | 1 | 1 |
| 20 | 3529x8x8 | Fitting 1/2" NPTF male x 1/2" NPTF male 90° | 2 | 2 | 2 |
| 21 | 9456x8x8 | "T" fitting 1/2" NPSM female swivel x 1/2" NPTF female | 2 | 2 | 2 |
| 22 | 3209x8x8 | Fitting 1/2" NPTF female x 1/2" NPTF male | 1 | 1 | 1 |
| 23 | 03-0279A | Check valve | 1 | 1 | 1 |
| 24 | 190-11111 | Hose 3/8" x 7" lg + 2 fittings 6U108 | 1 | 1 | 1 |

CYLINDER 30AT20

110-00711



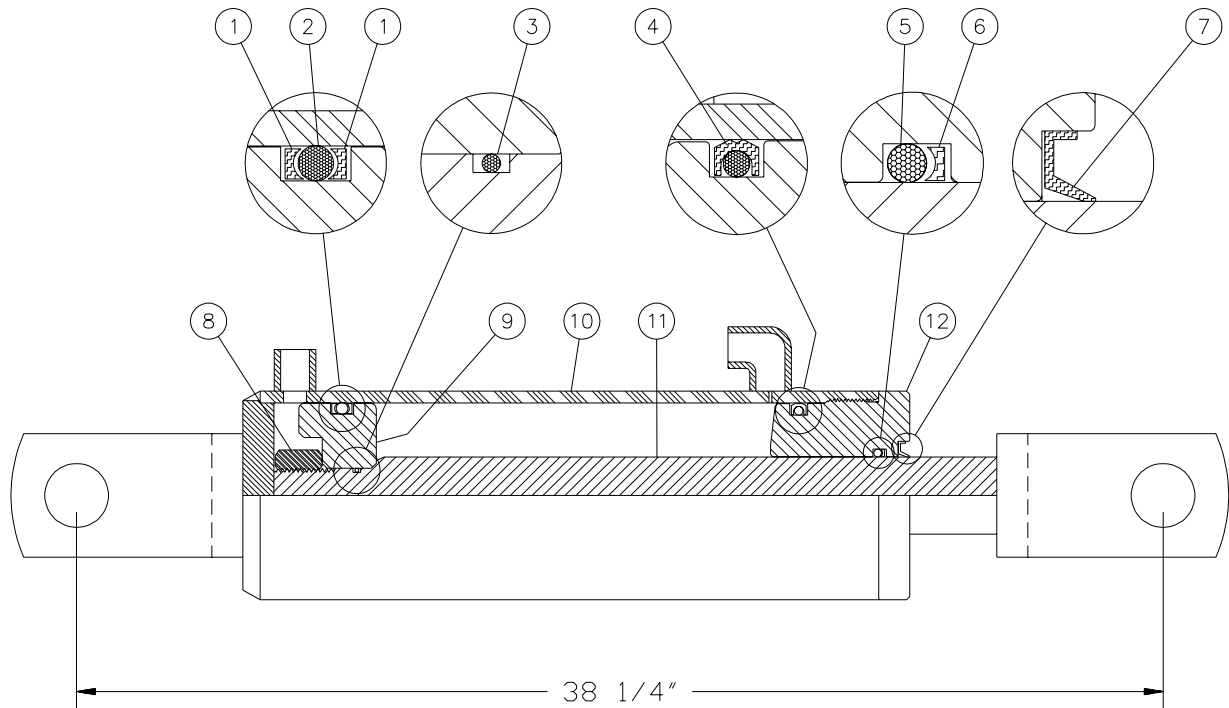
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | Std. | Grease fitting 1/4" - 28 straight | 1 |
| 2 | D-6161 | Bushing 1" i.d. x 1 1/4" o.d. x 2 1/2" | 1 |
| 3 | OR-018 | O-ring 1/16" x 3/4" x 7/8" | 1 |
| 4 | PSP-334 | O-ring 3/16" x 2 5/8" x 3" | 2 |
| 5 | OR-222 | O-ring 1/8" x 1 1/2" x 1 3/4" | 1 |
| 6 | BU-222 | Back-up 1/8" x 1 1/2" x 1 3/4" | 1 |
| 7 | AR-2269F0 | Wiper 1/8" x 1 1/2" x 2" | 1 |
| 8 | Std. | Nut 7/8" - 14NF | 1 |
| 9 | 150-06741 | Piston 3" dia. | 1 |
| 10 | 110-00891 | Cylinder body 3" dia. | 1 |
| 11 | D-5000031 | Piston rod 1 1/2" x 26 1/8" | 1 |
| 12 | D-5000041 | Head 3" dia. | 1 |
| 13 | Std. | Stopper 1 1/2" - 12 x 1 1/2" | 1 |
| 14 | 110-14621 | Piston rod end 1 1/2" - 12 | 1 |
| NI* | 36172 | Repair kit for cylinder (includes # 3, 4, 5, 6, & 7) | 1 |

*NI = Not illustrated

8

CYLINDER 30BC28

170-01911



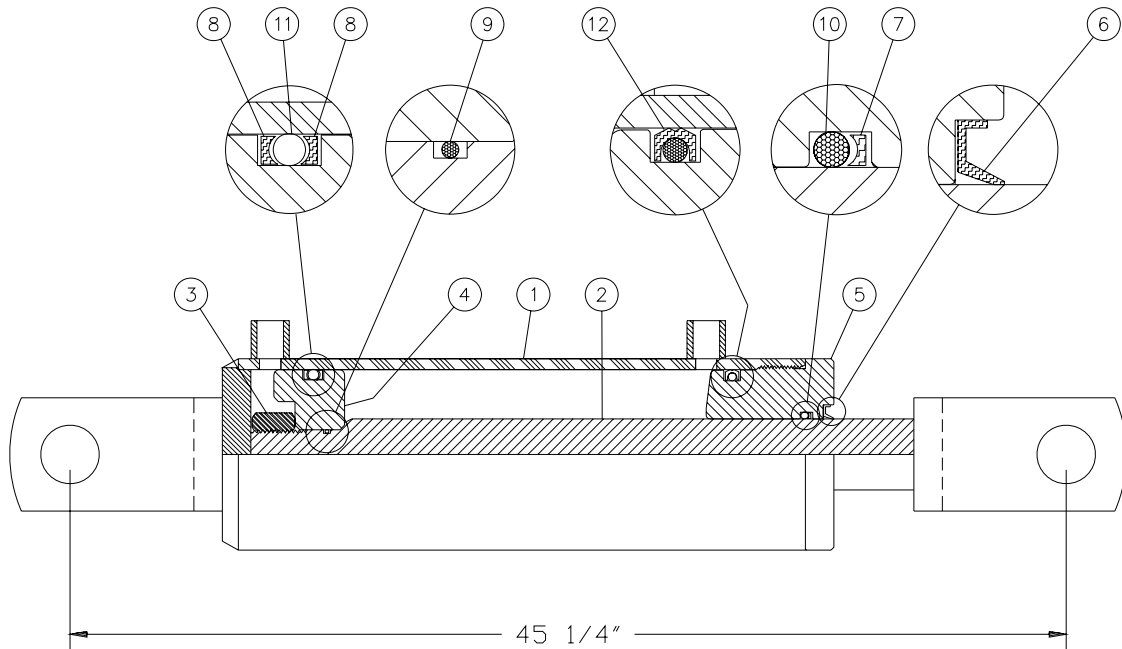
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | BU-334 | Back-up 3/16" x 2 5/8" x 3" | 2 |
| 2 | OR-334 | O-ring 3/16" x 2 5/8" x 3" | 1 |
| 3 | OR-018 | O-ring 1/16" x 3/4" x 7/8" | 1 |
| 4 | PSP-334 | O-ring 3/16" x 2 5/8" x 3" | 1 |
| 5 | OR-218 | O-ring 1/8" x 1 1/4" x 1 1/2" | 1 |
| 6 | BU-218 | Back-up 1/8" x 1 1/4" x 1 1/2" | 1 |
| 7 | CR12330 | Wiper 1/8" x 1 1/4" x 1 1/2" | 1 |
| 8 | 339-48220 | Nut 7/8" NF | 1 |
| 9 | 150-02371 | Piston 3" dia. | 1 |
| 10 | 110-12161 | Cylinder body 3" for 30BC28 with 1 fitting 3/8" NPT straight & 1 fitting 3/8" NPT 90 deg. | 1 |
| 11 | 110-11641 | Piston rod 1 1/4" for 30BC28 | 1 |
| 12 | 150-02381 | Head 3" dia. | 1 |
| NI* | 51444 | Repair kit for cylinder (includes # 1, 2, 3, 4, 5, 6, & 7) | 1 |

*NI = Not illustrated

8

CYLINDER 35BS35

110-36601



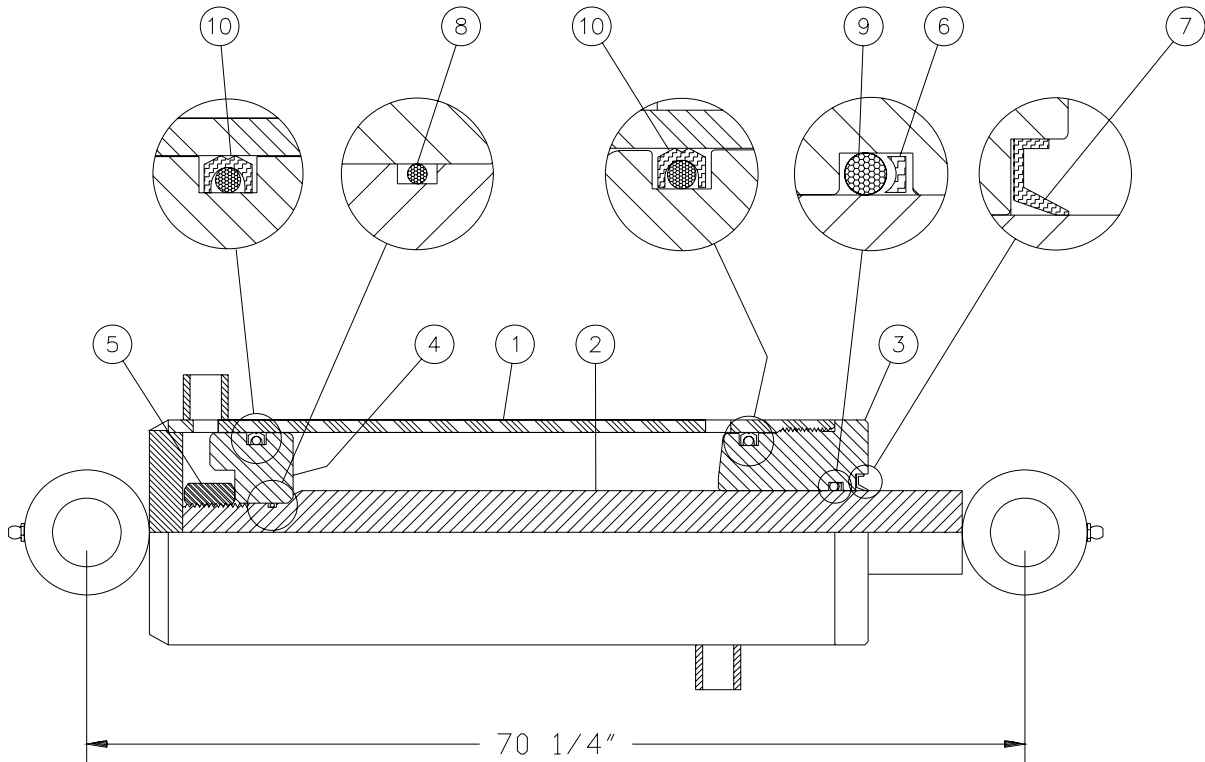
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---|-----|
| 1 | 110-34881 | Cylinder body 3 1/2" dia. | 1 |
| 2 | 110-34891 | Piston rod 1 1/2" x 43 7/32" | 1 |
| 3 | 338-48000 | Nut 7/8"-14NF | 1 |
| 4 | D-6113 | Piston 3 1/2" dia. | 1 |
| 5 | D-6114 | Head 3 1/2" dia. | 1 |
| 6 | AR-2269FO | Wiper 1/8" x 1 1/2" x 1 3/4" | 1 |
| 7 | BU-222 | Back-up 1/8" x 1 1/2" x 1 3/4" | 1 |
| 8 | BU-338 | Back-up 3/16" x 3 1/8" x 3 1/2" | 2 |
| 9 | OR-018 | O-ring 1/16" x 3/4" x 7/8" | 1 |
| 10 | OR-222 | O-ring 1/8" x 1 1/2" x 1 3/4" | 1 |
| 11 | OR-338 | O-ring 3/16" x 3 1/8" x 3 1/2" | 1 |
| 12 | PSP-338 | O-ring 3/16" x 3 1/8" x 3 1/2" | 1 |
| NI* | 36174 | Repair kit for cylinder (includes # 6, 7, 8, 9, 10, 11 & 12) | 1 |

*NI = Not illustrated

8

CYLINDER 40AG60

110-36611



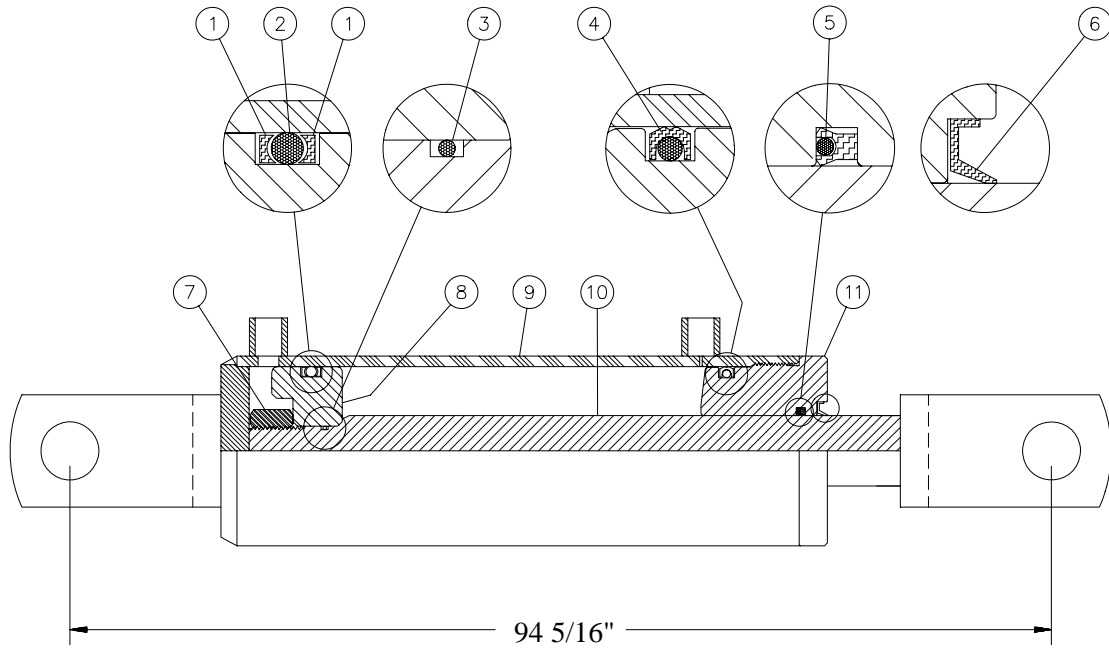
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---|-----|
| 1 | 110-35321 | Cylinder body 4" dia. | 1 |
| 2 | 110-35331 | Piston rod 2" x 69 9/16" | 1 |
| 3 | 150-09661 | Head 4" dia. | 1 |
| 4 | 150-09651 | Piston 4" dia. | 1 |
| 5 | 339-54000 | Nut 1 1/4" -12 NF | 1 |
| 6 | BU-226 | Back-up 1/8" x 2" x 2 1/4" | 1 |
| 7 | CR-19733 | Wiper 5/16" x 2" x 2 3/8" | 1 |
| 8 | OR-024 | O-ring 1/16" x 1 1/8" x 1 3/16" | 1 |
| 9 | OR-226 | O-ring 1/8" x 2" x 2 1/8" | 1 |
| 10 | PSP-342 | O-ring 3/16" x 3 5/8" x 4" | 2 |
| NI* | 36175 | Repair kit for cylinder (includes # 6, 7, 8, 9 & 10) | 1 |

*NI = Not illustrated

8

CYLINDER 30FT84

110-00691



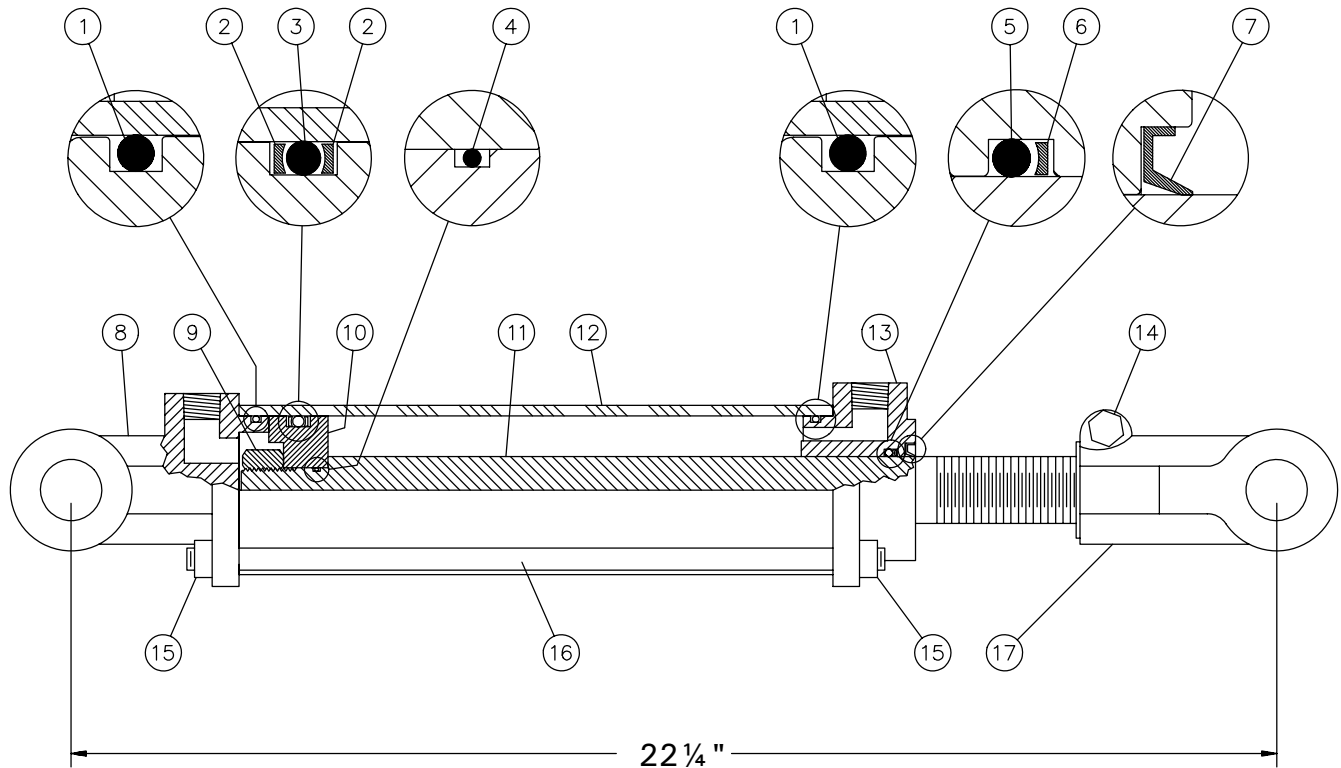
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | BU-334 | Back-up ring 3/16" x 2 5/8" x 3" | 2 |
| 2 | OR-334 | O-ring 3/16" x 2 5/8" x 3" | 1 |
| 3 | OR-018 | O-ring 1/16" x 3/4" x 7/8" | 1 |
| 4 | PSP-334 | O-ring 3/16" x 2 5/8" x 3" | 1 |
| 5 | 3C-375 | U-cup 1 3/4" x 2 1/4" | 1 |
| 6 | CR-17240 | Wiper 5/16" x 1 3/4" x 2 1/4" | 1 |
| 7 | Std. | Nut 7/8" - 14NF | 1 |
| 8 | D-6000 | Piston 3" dia. | 1 |
| 9 | 110-00881 | Cylinder body 3" dia. | 1 |
| 10 | D-6126 | Piston rod 1 3/4" x 85 9/16" | 1 |
| 11 | D-6106 | Head 3" dia. | 1 |
| NI* | 36176 | Repair kit for cylinder (includes # 1, 2, 3, 4, 5 & 6) | 1 |

*NI = Not illustrated

8

CYLINDER 30TR12

15050

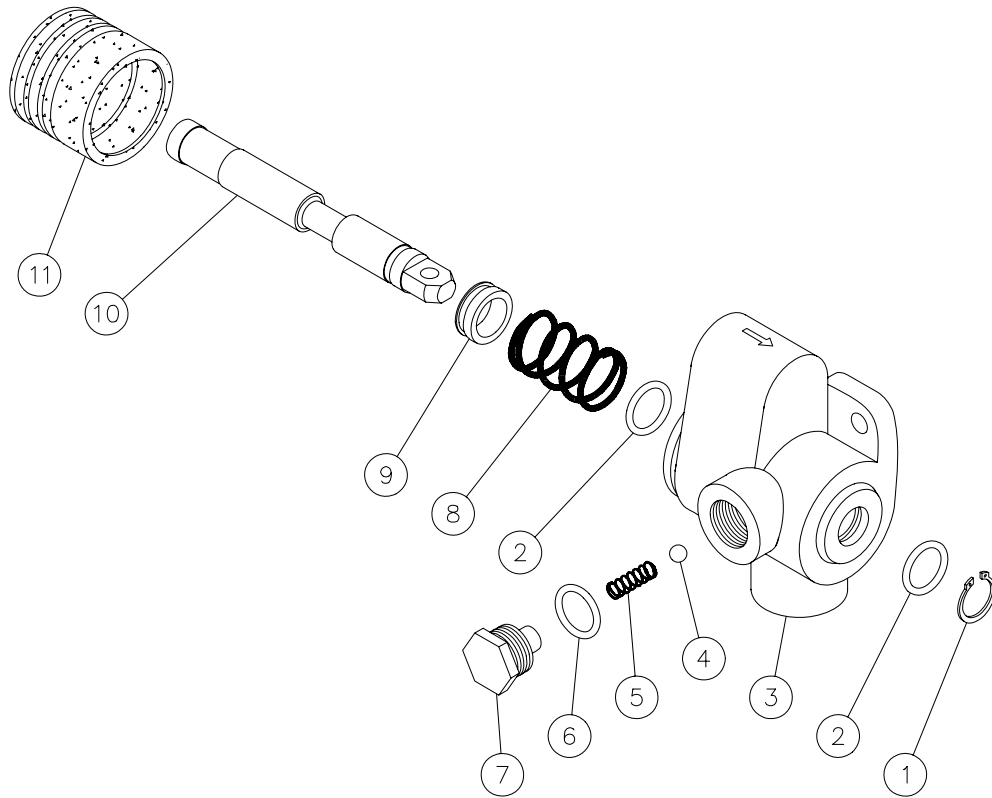


| REF. | PART # | DESCRIPTION | QTY |
|------|------------|---|-----|
| 1 | See RK30TR | O-ring | 2 |
| 2 | See RK30TR | Back-up ring | 2 |
| 3 | See RK30TR | O-ring | 1 |
| 4 | See RK30TR | O-ring | 1 |
| 5 | See RK30TR | O-ring | 1 |
| 6 | See RK30TR | Back-up ring | 1 |
| 7 | See RK30TR | Wiper | 1 |
| 8 | 492402 | Yoke (for 3" tube) | 1 |
| 9 | Std. | Nut 3/4" NF | 1 |
| 10 | 492432 | Piston 3" ø | 1 |
| 11 | 492042 | Piston rod 1 1/4" | 1 |
| 12 | 491742 | Cylinder body 3" ø | 1 |
| 13 | 492440 | Cylinder head (for 3" tube) | 1 |
| 14 | Std. | Bolt 3/8" NC x 2 1/4" + nut | 1 |
| 15 | Std. | Nut 3/8" NC | 8 |
| 16 | Std. | Threaded rod 3/8" NC | 4 |
| 17 | 458600 | Yoke (for 1 1/4" rod) | 1 |
| NI* | 8183 | Pin 1" ø + cotter pin | 2 |
| NI* | RK30TR | Repair kit for cylinder 3" (includes # 1, 2, 3, 4, 5, 6, & 7) | 1 |

*NI = Not illustrated

DIRECTIONAL CONTROL VALVE (Models «M» only)

170-00951

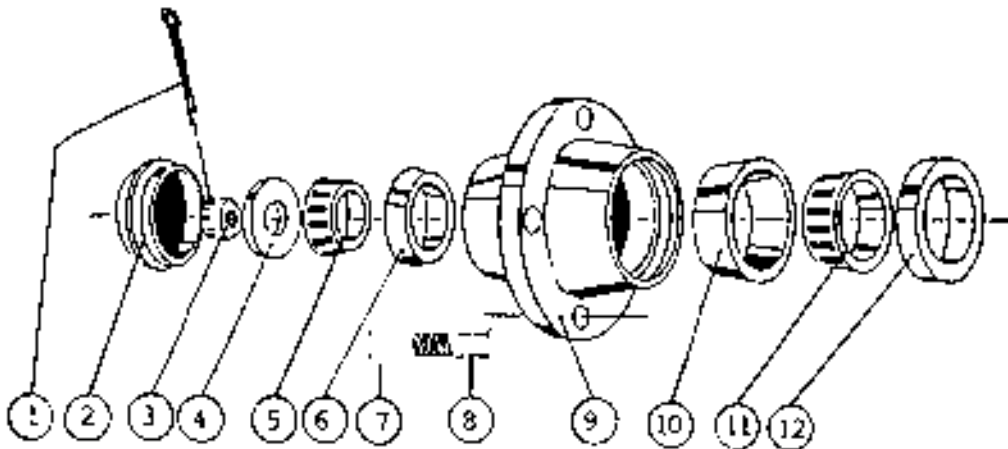


| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---------------------------------|-----|
| 1 | 649-00022 | Snap ring | 1 |
| 2 | 649-00023 | O-ring | 2 |
| 3 | 649-00024 | Body | 1 |
| 4 | 649-00025 | Ball for pressure valve | 1 |
| 5 | 649-00026 | Spring for pressure valve | 1 |
| 6 | 649-00027 | O-ring | 1 |
| 7 | 649-00028 | Cap for pressure valve | 1 |
| 8 | 649-00029 | Spring | 1 |
| 9 | 649-00030 | Ring | 1 |
| 10 | 649-00031 | Spool | 1 |
| 11 | 649-00032 | Rubber boot | 1 |

* Some parts might not be available apart.

8

HUBS H8001 (36132) H10000 (36133)










| REF. | PART # | DESCRIPTION | QTY | |
|------|--------|--|--------|---------|
| | | | H-8001 | H-10000 |
| 1 | Std. | Cotter pin 3/16" x 2 1/2" | 1 | - |
| 1 | Std. | Cotter pin 1/4" x 2 1/2" | - | 1 |
| 2 | 36114 | Dust cap 3.135" ø | 1 | - |
| 2 | 36115 | Dust cap 3.360" ø | - | 1 |
| 3 | 36116 | Castle nut 1" - 14 | 1 | - |
| 3 | 36117 | Castle nut 1 1/4" - 12 | - | 1 |
| 4 | Std. | Flat washer 1" | 1 | - |
| 4 | Std. | Flat washer 1 1/4" | - | 1 |
| 5 | 36118 | Roller bearing: cone no. LM 501349 | 1 | - |
| 5 | 36119 | Roller bearing: cone no. 4T-25580 | - | 1 |
| 6 | 36120 | Roller bearing: cup no. LM 501310 | 1 | - |
| 6 | 36121 | Roller bearing: cup no. 4T-25520 | - | 1 |
| 7 | 36135 | Nut 5/8" | 8 | 8 |
| 8 | 36122 | Stud 5/8" x 2 1/8" | 8 | 8 |
| 9 | 36123 | Hub only H8000 | 1 | - |
| 9 | 36124 | Hub only H10000 | - | 1 |
| 10 | 36125 | Roller bearing: cup no. LM 506810 | 1 | - |
| 10 | 36126 | Roller bearing: cup no. 4T-28921 | - | 1 |
| 11 | 36127 | Roller bearing: cone no. LM 506849 | 1 | - |
| 11 | 36128 | Roller bearing: cone no. 4T-28995 | - | 1 |
| 12 | 36129 | Oil seal no. CR27361 | 1 | - |
| 12 | 36130 | Oil seal no. CR29273 | - | 1 |








TORQUE CHART

TORQUE SPECIFICATION TABLE

| Thread UNC and UNF | | Grade 2  | | | | Grade 5    | | | | Grade 8*    | | | |
|--------------------|-------|---|------|---------------|-------|--|------|---------------|--------|--|------|---------------|--------|
| Bolt size | | Torque | | | | Torque | | | | Torque | | | |
| Inches | mm | Pound feet | | Newton meters | | Pound feet | | Newton meters | | Pound feet | | Newton meters | |
| | | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. |
| 1/4 | 6.35 | 5 | 6 | 6.8 | 8.13 | 9 | 11 | 12.2 | 14.9 | 12 | 15 | 16.3 | 30.3 |
| 5/16 | 7.94 | 10 | 12 | 13.6 | 16.3 | 17 | 20.5 | 23.1 | 27.8 | 24 | 29 | 32.5 | 39.3 |
| 3/8 | 9.53 | 20 | 23 | 27.1 | 31.2 | 35 | 42 | 47.5 | 57.0 | 45 | 54 | 61.0 | 73.2 |
| 7/16 | 11.11 | 30 | 35 | 40.7 | 47.4 | 54 | 64 | 73.2 | 86.8 | 70 | 84 | 94.9 | 113.9 |
| 1/2 | 12.70 | 45 | 52 | 61.0 | 70.5 | 80 | 96 | 108.5 | 130.2 | 110 | 132 | 149.2 | 179.0 |
| 9/16 | 14.29 | 65 | 75 | 88.1 | 101.6 | 110 | 132 | 149.2 | 179.0 | 160 | 192 | 217.0 | 260.4 |
| 5/8 | 15.88 | 95 | 105 | 128.7 | 142.3 | 150 | 180 | 203.4 | 244.1 | 220 | 264 | 298.3 | 358.0 |
| 3/4 | 19.05 | 150 | 185 | 203.3 | 250.7 | 270 | 324 | 366.1 | 439.3 | 380 | 456 | 515.3 | 618.3 |
| 7/8 | 22.23 | 160 | 200 | 216.8 | 271.0 | 400 | 480 | 542.4 | 650.9 | 600 | 720 | 813.6 | 976.3 |
| 1 | 25.40 | 250 | 300 | 338.8 | 406.5 | 580 | 696 | 786.5 | 943.8 | 900 | 1080 | 1220.4 | 1464.5 |
| 1 1/8 | 25.58 | - | - | - | - | 800 | 880 | 1084.8 | 1193.3 | 1280 | 1440 | 1735.7 | 1952.6 |
| 1 1/4 | 31.75 | - | - | - | - | 1120 | 1240 | 1518.7 | 1681.4 | 1820 | 2000 | 2467.9 | 2712.0 |
| 1 3/8 | 34.93 | - | - | - | - | 1460 | 1680 | 1979.8 | 2278.1 | 2380 | 2720 | 3227.3 | 3688.3 |
| 1 1/2 | 38.10 | - | - | - | - | 1940 | 2200 | 2630.6 | 2983.2 | 3160 | 3560 | 4285.0 | 4827.4 |

* Thick nuts must be used with grade 8 bolts.

| Size of screw | Thread | Pitch (mm) | Grade 4T   | | | | Grade 7T  | | | | Grade 8T   | | | |
|---------------|--------|------------|--|------|---------------|-------|---|------|---------------|-------|--|------|---------------|-------|
| | | | Torque | | | | Torque | | | | Torque | | | |
| | | | Pound feet | | Newton meters | | Pound feet | | Newton meters | | Pound feet | | Newton meters | |
| | | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | min. | max. | |
| M6 | UNC | 1.00 | 3.6 | 5.8 | 4.9 | 7.9 | 5.8 | 9.4 | 7.9 | 12.7 | 7.2 | 10 | 9.8 | 13.6 |
| M8 | UNC | 1.25 | 7.2 | 14 | 9.8 | 19 | 17 | 22 | 23 | 29.8 | 20 | 26 | 27.1 | 35.2 |
| M10 | UNC | 1.5 | 20 | 25 | 27.1 | 33.9 | 34 | 40 | 46.1 | 54.2 | 38 | 46 | 51.5 | 62.3 |
| M12 | UNC | 1.75 | 28 | 34 | 37.9 | 46.1 | 51 | 59 | 69.1 | 79.9 | 57 | 66 | 77.2 | 89.4 |
| M14 | UNC | 2.0 | 49 | 56 | 66.4 | 75.9 | 81 | 93 | 109.8 | 126 | 96 | 109 | 130.1 | 147.7 |
| M16 | UNC | 2.0 | 67 | 77 | 90.8 | 104.3 | 116 | 130 | 157.2 | 176.2 | 129 | 145 | 174.8 | 196.5 |
| M18 | UNC | 2.0 | 88 | 100 | 119.2 | 136 | 150 | 168 | 203.3 | 227.6 | 175 | 194 | 237.1 | 262.9 |
| M20 | UNC | 2.5 | 108 | 130 | 146.3 | 176.2 | 186 | 205 | 252 | 277.8 | 213 | 249 | 288.6 | 337.4 |
| M8 | UNF | 1.0 | 12 | 17 | 16.3 | 23 | 19 | 27 | 25.7 | 36.6 | 22 | 31 | 29.8 | 42 |
| M10 | UNF | 1.25 | 20 | 29 | 27.1 | 39.3 | 35 | 47 | 47.4 | 63.7 | 40 | 52 | 54.2 | 70.5 |
| M12 | UNF | 1.25 | 31 | 41 | 42 | 55.6 | 56 | 68 | 75.9 | 92.1 | 62 | 75 | 84 | 101.6 |
| M14 | UNF | 1.5 | 52 | 64 | 70.5 | 86.7 | 90 | 106 | 122 | 143.6 | 107 | 124 | 145 | 168 |
| M16 | UNF | 1.5 | 69 | 83 | 93.5 | 112.5 | 120 | 138 | 162.6 | 187 | 140 | 158 | 189.7 | 214.1 |
| M18 | UNF | 1.5 | 100 | 117 | 136 | 158.5 | 177 | 199 | 239.8 | 269.6 | 202 | 231 | 273.7 | 313 |
| M20 | UNF | 1.5 | 132 | 150 | 178.9 | 203.3 | 206 | 242 | 279.1 | 327.9 | 246 | 289 | 333.3 | 391.6 |

Use the above torques when special torque is not given.

NOTE: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if extreme pressure lubricants are used.

WARRANTY

PRONOVOST warrants this product to the initial purchaser for the period of one year from the date of purchase against defects in materials and workmanship.

We will replace or repair defective parts free of charge if they are returned to our plant in St-Tite, Quebec, Canada.

Transportation charges are the responsibility of the customer. This warranty is not transferable.

Tires are covered by the manufacturers of these items.

All PRONOVOST spare parts purchased are covered by a three (3) month warranty.

This warranty becomes void and nul if the equipment is modified, breaks down as result of an accident, if not operated according to manufacturer's recommendations, damaged by negligence or if maintenance has not been carried out as specified.

Our obligation is limited to the replacement or repair of the defective part. PRONOVOST accepts no responsibility for direct or indirect consequential damages of any kind.

Ce manuel est aussi disponible en français.
Veuillez téléphoner.



INNOVATION - EXCELLENCE

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