



**OPERATOR'S / PARTS
MANUAL**



Dump trailers

Models

P-508/3S

P-510/3S

P-50710/4E

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TABLE OF CONTENTS

| Section | Item | Page |
|----------------|---|-------------|
| 1 | Introduction | 5 |
| 2 | Safety | 6 |
| | General Safety | 6 |
| | Safety in Operation | 6 |
| | Safety with Maintenance | 7 |
| | Safety in Transport | 7 |
| 3 | Decals | 8 |
| | Safety Decals | 8 |
| | Maintenance Decals | 8 |
| 4 | Start-up | 9 |
| | Basic Start-up Procedures | 9 |
| 5 | Maintenance | 10 |
| 6 | Storage | 11 |
| 7 | Specifications | 12 |
| 8 | Parts List | 13 |
| | Dump Trailer P-508/3S | 13 |
| | Dump Trailers P-510/3S | 15 |
| | Dump Trailer P-50710/4E | 18 |
| | Electric Hydraulic Pump P-510-PHE | 21 |
| | Electric circuit | 22 |
| | Hub H4000 | 23 |
| | Hub H5000 | 24 |
| | Directional Control Valve DFC40 | 25 |
| | Telescopic Cylinder # 51506 | 26 |
| | Power Pack # 51536 | 27 |
| 9 | Torque Chart | 29 |
| 10 | Warranty | 30 |

INTRODUCTION

1

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 Dump Trailer. It contains important information which will help you achieve excellent returns with your PRONOVOST Dump Trailer for years to come.

Please read this manual before operating your Trailer and keep it for future reference.

Before using this equipment, you or any other person who will be using it must familiarize yourself with the safety recommendations, the operating and safety instructions. Please read carefully and be sure to understand and follow all recommendations and procedures.

In this manual, the right and left sides are identified while standing at the rear end of the equipment and facing it.

If you require additional information on your Dump Trailer, please contact your PRONOVOST Dealer.

NOW take a moment to enter the model, serial number and the date of purchase of your Trailer in the space provided below.

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

The model and serial numbers are on the name plate shown on Fig. 1.

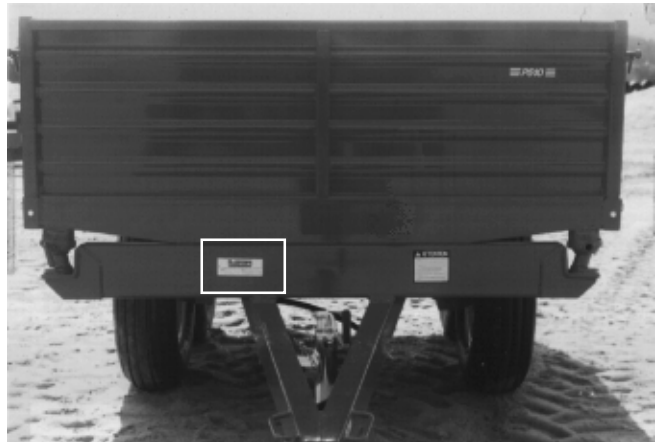


Figure 1

MODEL: _____ ✍

SERIAL NO: _____ ✍

DATE OF PURCHASE: _____ ✍

SAFETY

GENERAL SAFETY

2

WHEN YOU SEE THIS SYMBOL



ATTENTION!

**BE ALERT
YOUR SAFETY IS INVOLVED**

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

- 1) Careful operation is the best assurance against accidents. Carefully read this manual and follow all recommendations before operating this equipment. It is the owner's responsibility to make sure that anyone who will operate the Trailer will read this manual before operating the equipment.
- 2) Do not modify the equipment. Any non authorized modification may affect the efficiency and/or safety of the equipment.
- 3) Never operate the equipment with defective parts or if damaged in any way. Have it repaired before using it.
- 4) Make sure all fasteners are in place and properly secured or tightened. Refer to torque chart on page 29.
- 5) Hydraulic fluids under pressure can damage your skin. Do not use your hands to locate a leak.
- 6) Battery (with 12V hydraulic system) contains

sulfuric acid. Avoid contact with skin, eyes or clothing.

SAFETY IN OPERATION

- 1) **WARNING!** Do not overload your trailer, do not exceed the load capacity indicated in the specifications on page 12.
- 2) Be sure there are no obstructions around the equipment and that no one stands near the equipment when in use.
- 3) Do not operate an engine in a confined or non ventilated area.
- 4) Do not perform any adjustments, cleaning, maintenance or repairs with the engine running on the towing vehicle. Preferably remove the key from the ignition.
- 5) Be careful when backing-up, make sure you have good visibility.
- 6) In the case of a Highway Service Trailer, make sure the suspension, brakes and lights are all functioning properly.
- 7) Do not forget to unlock the proper panel before dumping.
- 8) With the 3-way dump trailers, do not forget to install the pins in the two ball-joints on the side you wish to dump the load, and release the adjacent panel.
- 9) Always travel at a safe operating speed following regulations and common sense. In the case of agricultural service tires, follow the manufacturer's specified safe speed. The road speed should be such as to maintain full control over steering and braking.

SAFETY (cont'd)

SAFETY WITH MAINTENANCE

- 1) Perform maintenance according to recommendations contained in this manual.
 - 2) **Before performing any work under the raised platform, always install the safety support provided.**
 - 3) If the trailer is hooked up to the tractor while performing maintenance work, make sure the engine is not running and preferably remove the ignition key.
- 2) Be alert while driving on the road. Never carry passengers.

2

SAFETY IN TRANSPORT

- 1) On public roads, use proper safety lights and check local regulations.

DECALS

SAFETY DECALS

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

3

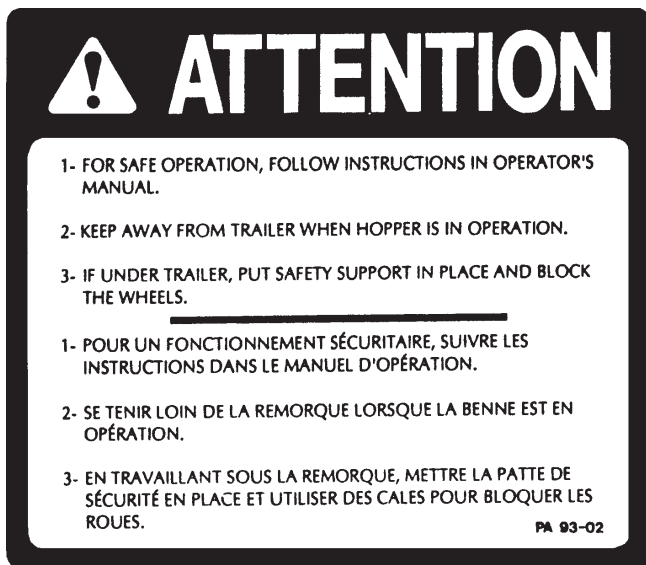


Figure 2
Decal A Part no.: A110

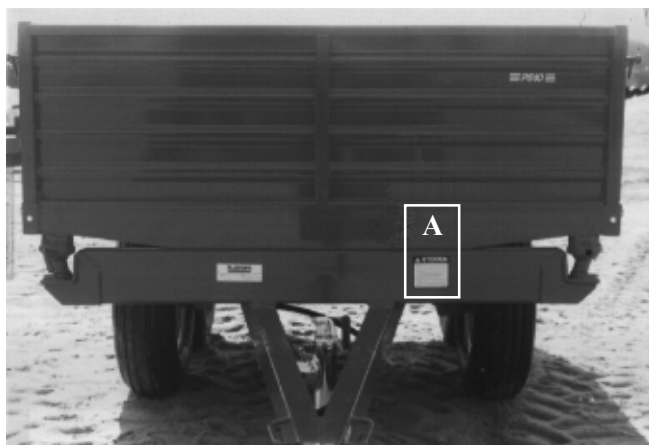


Figure 3

MAINTENANCE DECALS

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

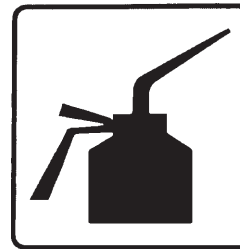


Figure 4 Part no.: A 105



Figure 5 Part no.: A 106

START-UP

BASIC START-UP PROCEDURES

- 1) Lubricate all grease fittings with a good quality multiuse grease.
- 2) Lubricate panel release mechanism, front and rear with good quality oil.
- 3) Adjust tire pressure to manufacturer's specifications.
- 4) Install wheels on hubs.
- 5) Install panels.
- 6) Install all hydraulic hoses and fittings compatible with your equipment.
- 7) Verify for adequate tightness of all fastening devices. Refer to torque chart on page 29.
- 8) Operate the hydraulic system a few times, raising and lowering the platform in order to remove any trapped air in the system. Then check the oil level in the tractor's hydraulic oil reservoir.
- 9) With the 3-way dump trailer, the ball-joint pins are usually installed in a "X" configuration to prevent tipping during handling. They must be installed on the side you wish to dump the load. **ATTENTION: Never use the "X" configuration when using your Dump Trailer.**
- 10) Do not forget to unlock the proper panel before dumping.

4

MAINTENANCE

Before performing any work under the raised platform, always install the safety support provided.

- 1) Wipe off all grease fittings with a clean cloth before adding grease in order to avoid injecting dirt or sand.
- 2) Repair or replace damaged grease fittings.
- 3) Lubricate all grease fittings every 20 hours of operation.
- 4) Check all bolts on wheels after first 5 hours of operation and then every 50 hours of operation.
- 5) Lubricate panel release mechanism, front and rear, every 20 hours of operation.
- 6) Check tire pressure every 50 hours of operation, adjust according to manufacturer's recommendation indicated on the tires.
- 7) Check brakes once a year and adjust or repair if necessary.
- 8) Open, clean and lubricate wheel bearings once a year.
- 9) Check all nuts and bolts once a year. If necessary use torque chart on page 29.

5

STORAGE

- 1) Store in a cool, dry place.
- 2) Install wooden blocks under the axles to keep the tires off the ground and cover them if left exposed to the sun.
- 3) Keep all piston rods in the retracted position. This will assure better protection against the elements.
- 4) Clean your trailer.
- 5) Thoroughly inspect all parts of the trailer. Replace or repair worn or defective parts.
- 6) Touch-up or repaint if necessary.
- 7) Lubricate all points before storage.

SPECIFICATIONS

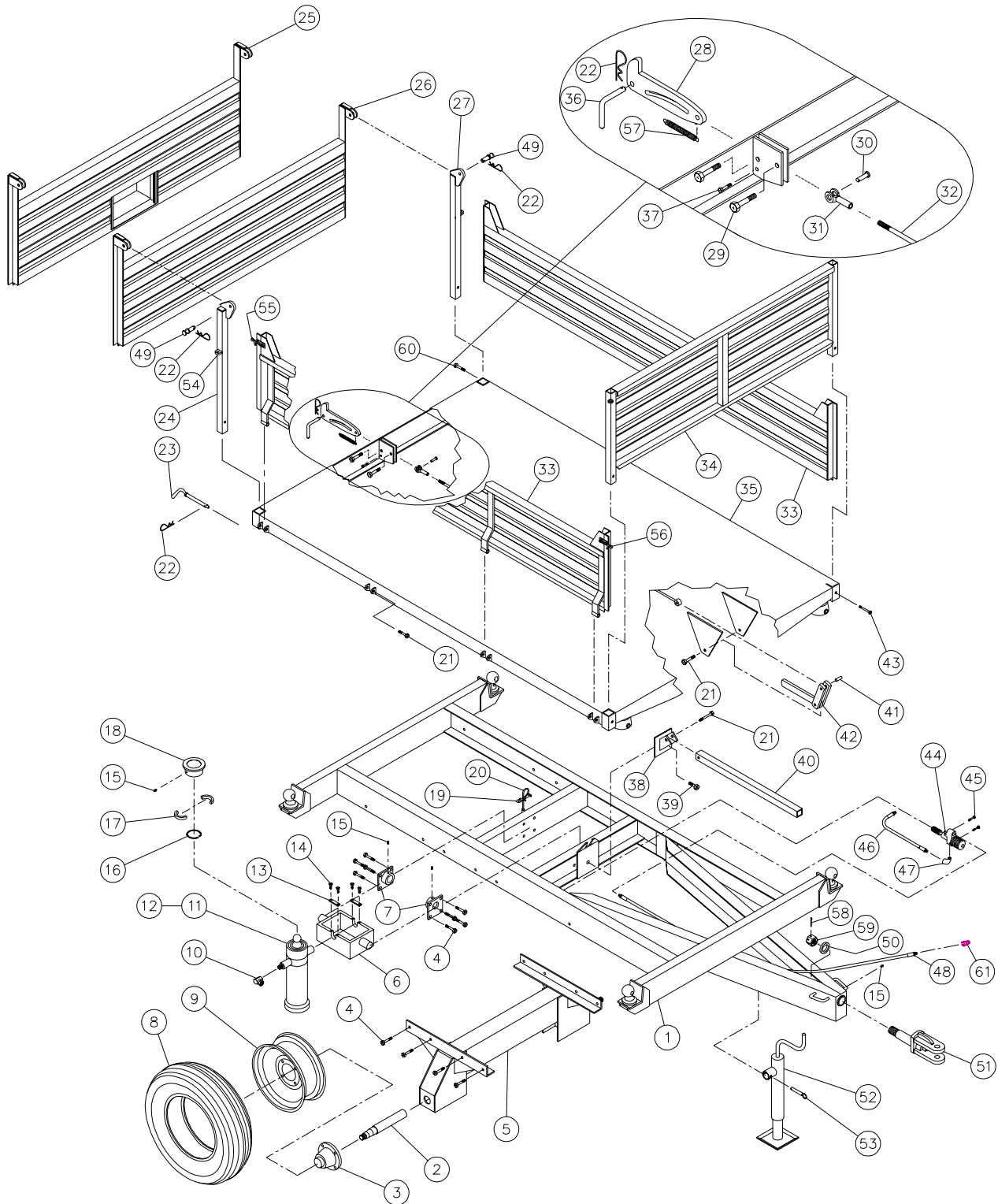
| SERVICE | AGRICULTURAL | AGRICULTURAL | HIGHWAY |
|--------------------------------|---------------------|---------------------|-------------------|
| MODEL | P-508/3S | P-510/3S | P-50710/4E |
| Gross weight | 4 tons | 5 tons | 3.5 tons |
| Width x length interior of box | 62" x 99" | 62" x 99" | 62" x 99" |
| Thickness of floor | 3/16" | 3/16" | 3/16" |
| Side panel height 12G * | 14" | 14" | 14" |
| Front/back panel height 12G * | 19" | 19" | 19" |
| Platform height | 33" | 33" | 34" |
| Overall length | 138" | 138" | 138" |
| Overall width | 68" | 68" | 68" |
| Overall height | 63" | 63" | 64" |
| Free height / maximum lift | 20" | 20" | 21" |
| Thread width | 51" | 51" | 52 1/2" |
| Dumping angle (back) | 47° | 47° | 47° |
| Dumping angle (2 sides) | 47° | 47° | 47° |
| Central unloading hatch | option | option | option |
| Axle | Single | Tandem | Tandem |
| Suspension | -- | -- | Springs |
| Hubs | 6 bolts | 6 bolts | 5 bolts |
| Hub capacity | 5000 lbs | 4000 lbs | 1750 lbs |
| Spindles | 2 1/4" | 2" | -- |
| Wheels | 2 | 4 | 4 |
| Wheel dimensions | 15 x 8 x 6 | 15 x 8 x 6 | 14" x 6" |
| Tires (standard) | 11L15 (8 ply) | 11L15 (8 ply) | ST205/75R14 |
| Hitch: clevis/swivel | standard | standard | option |
| Hitch: ball coupler (2 5/16") | option | option | standard |
| Electric brakes | -- | -- | standard |
| Security chain | option | option | standard |
| Electric power pack | option | option | option |
| Battery rack | option | option | standard |
| Light system (12 V) | -- | -- | standard |
| Oil / volume required | 5 L | 5 L | 5 L |
| Cylinder | 1 single acting | 1 single acting | 1 single acting |
| Hitch weight (empty) | 125 lbs | 125 lbs | 125 lbs |
| Total weight | 1775 lbs | 1850 lbs | 1850 lbs |

Design and specifications subject to change without notice.

* Removable

DUMP TRAILER P-508/3S

170-02301R1



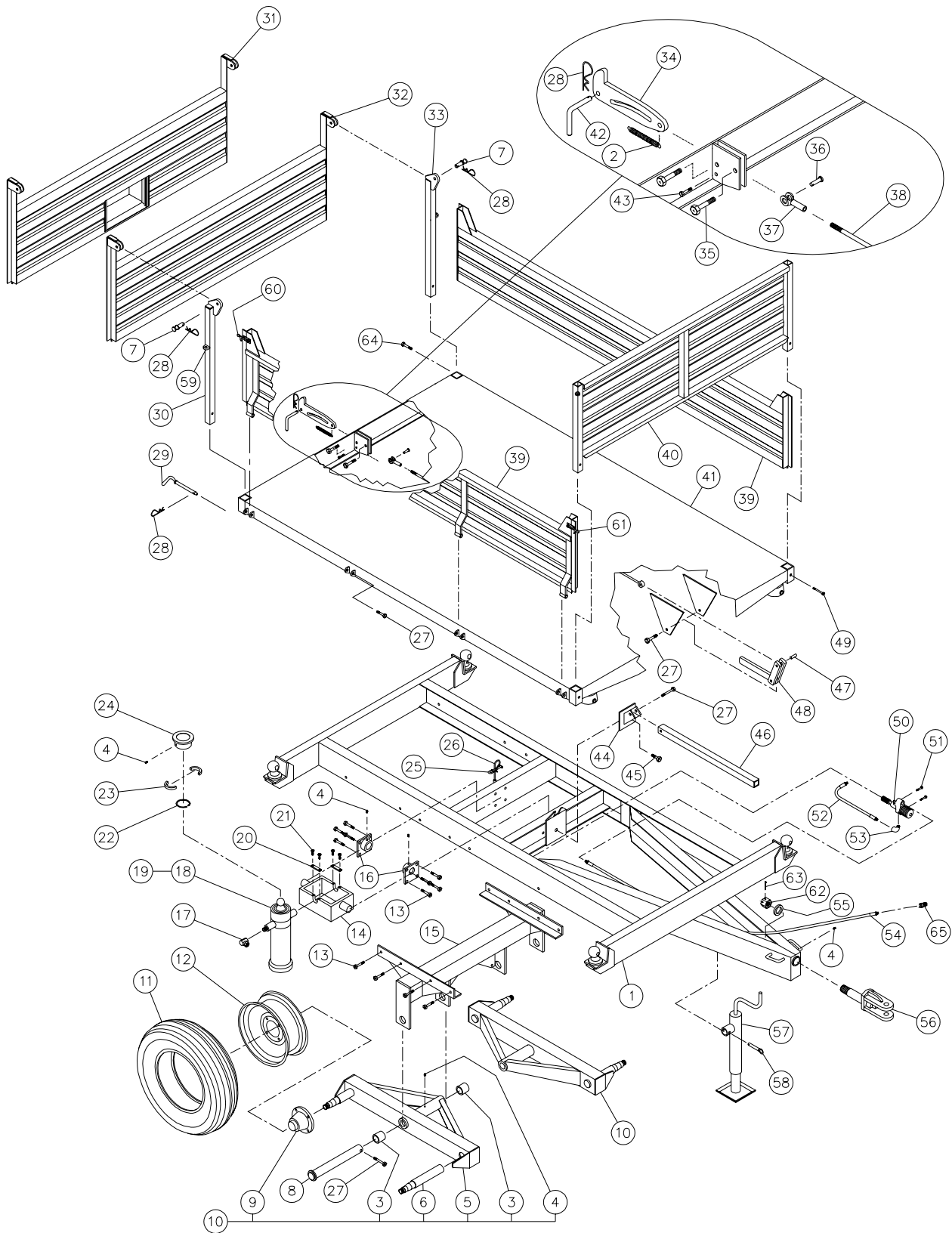
8

DUMP TRAILER P-508/3S (cont'd)

| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|------|
| 1 | 120-02231 | Frame | 1 |
| 2 | 150-00312 | Axle 2 1/4" ø (welded) | 2 |
| 3 | 51441 | Hub # H-5000 complete (see details 24) | 2 |
| 4 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 16 |
| 5 | 110-08962 | Cross-beam (including # 2) | 1 |
| 6 | 51610 | Cylinder gimbal | 1 |
| 7 | 110-09041 | Pivot plate | 2 |
| 8 | PN-11L15 | Tire 11L15 - 8 ply with tube | 2 |
| 9 | R-1586 | Rim 15" x 8" - 6 holes | 2 |
| 10 | 9455-8x8 | Elbow (swivel) | 1 |
| 11 | 51506 | Telescopic cylinder 3 sections (see details page 26) | 1 |
| 12 | 51527 | Repair kit for cylinder no. 51506 (see details page 26) | 1 |
| 13 | 51572 | Retaining plate for cylinder gimbal | 2 |
| 14 | 51573 | Metric bolt 8 x 20 x 1.25 mm | 4 |
| 15 | Std. | Grease fitting 1/4" - 28 straight | 4 |
| 16 | 51574 | Retaining ring 2 5/8" int. | 1 |
| 17 | 51575 | Locking segments for ball-joint 2 7/8" | 2 |
| 18 | 51576 | Ball joint seat (welded) 4 1/2" | 1 |
| 19 | Std. | Cable clamp 3/16" | 2 |
| 20 | 190-03031 | Cable 3/16" x 72" | 1 |
| 21 | 300-40400 | Bolt 1/2" NC x 3" lg + nylon locknut | 10 |
| 22 | Std. | Hitch pin clip 5/32" | 5 |
| 23 | 150-00721 | Pin for platform pivot | 2 |
| 24 | 110-14391 | Right rear stake | 1 |
| 25 | 120-00522 | Rear panel with grain door | opt. |
| 26 | 110-02772 | Standard rear panel | 1 |
| 27 | 110-14461 | Left rear stake | 1 |
| 28 | 130-16211 | Rear panel lock | 1 |
| 29 | 300-40340 | Bolt 1/2" NC x 2" lg + nylon locknut | 2 |
| 30 | 51436 | Pin 1/2" ø x 1 3/4" lg | 1 |
| 31 | 51435 | Clevis 1/2" - 20 NF + nut | 1 |
| 32 | 110-14541 | Rod 1/2" for rear panel lock | 1 |
| 33 | 110-11541 | Side panel | 2 |
| 34 | 110-11532 | Front panel | 1 |
| 35 | 120-01652 | Platform | 1 |
| 36 | 150-02861 | Pin for rear locking mechanism | 1 |
| 37 | 300-34325 | Bolt 5/16" NC x 1 3/4" lg + nylon locknut | 1 |
| 38 | 110-11561 | Safety support bracket | 1 |
| 39 | 300-44310 | Bolt 5/8" NC x 1 1/2" lg + nylon locknut | 1 |
| 40 | 160-05971 | Safety support | 1 |
| 41 | 150-02761 | Pin 1/2" x 1 1/2" lg | 1 |
| 42 | 110-14271 | Lever for automatic locking mechanism | 1 |
| 43 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg + nylon locknut | 2 |
| 44 | 644-10000 | Directional control valve 3/8" NPT (cyl. travel limit) (see details page 25) | 1 |
| 45 | 300-34280 | Bolt 5/16" NC x 1 1/4" lg + nut & lock washer | 2 |
| 46 | 190-03041 | Hose R1 3/8" x 21" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 47 | 3409-6x6 | Street elbow 3/8" (male - female) | 1 |
| 48 | 190-03051 | Hose R1 3/8" x 114" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 49 | 150-02851 | Hinge pin for rear panel | 2 |
| 50 | 130-20331 | Flat washer 1 5/8" i.d. x 2 1/4" o.d. | 1 |
| 51 | 110-08991 | Swivel hitch | 1 |
| 52 | 51490 | Jack 3000 lbs (includes # 53) | 1 |
| 53 | 51408 | Pin for jack | 1 |
| 54 | 51583 | Ring for side panel lock (welded) | 4 |
| 55 | 51584-G | Side panel lock (L.H.) (welded) | 2 |
| 56 | 51584-D | Side panel lock (R.H.) (welded) | 2 |
| 57 | 190-02351 | Spring 3/4" o.d. x 4 1/2" | 1 |
| 58 | Std. | Cotter pin 1/4" x 3" | 1 |
| 59 | 357-57000 | Castle nut 1 1/2" NC | 1 |
| 60 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg | 2 |
| 61 | Std. | Quick coupler 1/2" male | 1 |

DUMP TRAILER P-510/3S

170-02313R1



8

DUMP TRAILER P-510/3S (cont'd)

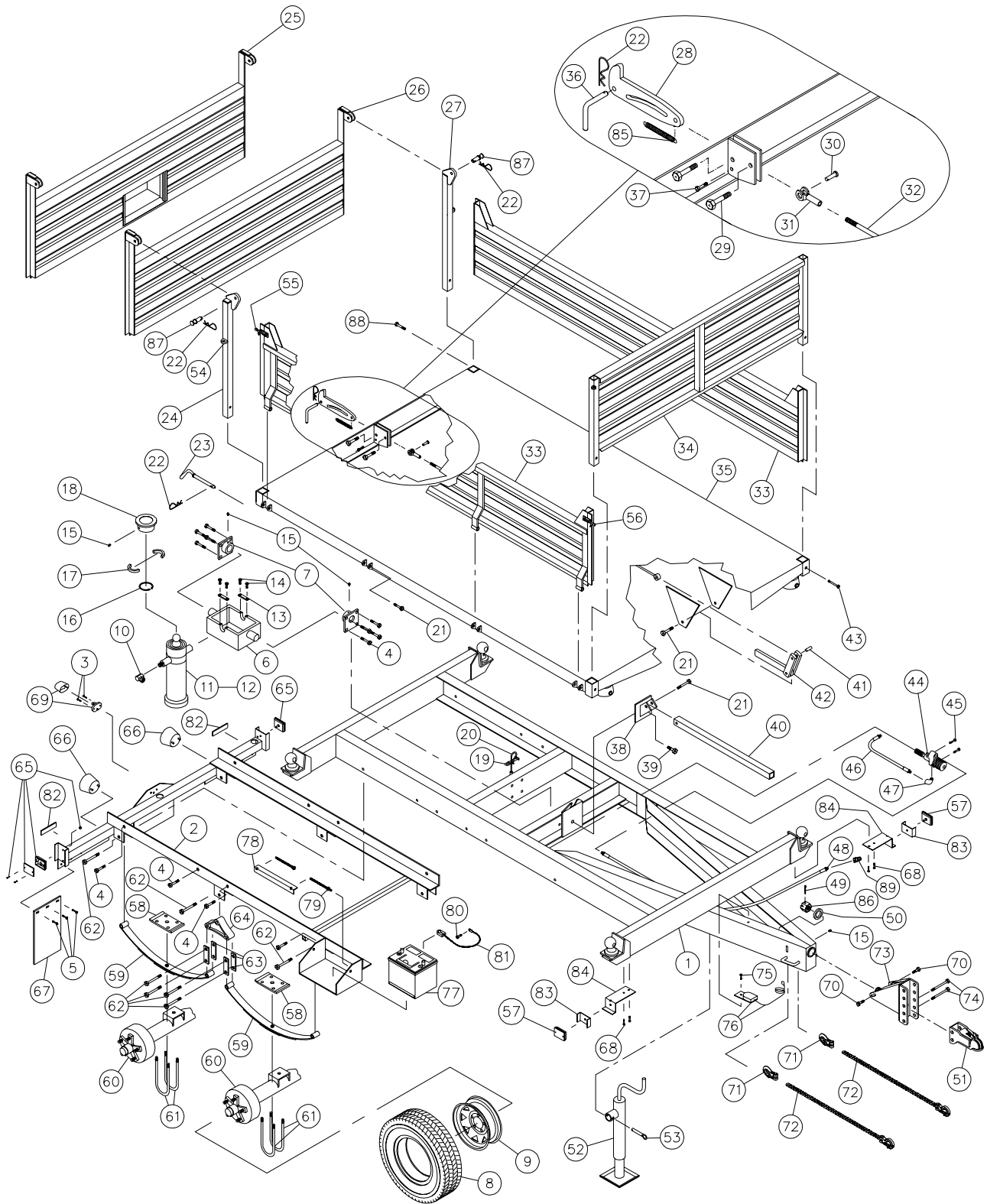
| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|--|------|
| 1 | 120-02231 | Frame | 1 |
| 2 | 190-05351 | Spring 3/4" d.e. x 4 1/2" lg | 1 |
| 3 | 160-01091 | Brass bushing 1 3/4" i.d. x 2" o.d. x 2" lg | 4 |
| 4 | Std. | Grease fitting 1/4"-28 straight | 6 |
| 5 | 110-11412 | Tandem frame | 2 |
| 6 | 150-02282 | Axle 2" ø (welded) | 4 |
| 7 | 150-02851 | Hinge pin for rear panel | 2 |
| 8 | 110-00011 | Pin for tandem | 2 |
| 9 | 51503 | Hub # H-4000 complete (see details page 23) | 4 |
| 10 | 110-11414 | Tandem assembly (including 3, 4, 5, 6 & 9) | 2 |
| 11 | PN-11L15 | Tire 11L15 - 8 ply | 4 |
| 12 | R-1586 | Rim 15" x 8" - 6 holes | 4 |
| 13 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 16 |
| 14 | 51610 | Cylinder gimbal | 1 |
| 15 | 110-11421 | Cross-beam | 1 |
| 16 | 110-09041 | Pivot plate | 2 |
| 17 | 9455-8x8 | Elbow (swivel) | 1 |
| 18 | 51506 | Telescopic cylinder 3 sections (see details page 26) | 1 |
| 19 | 51527 | Repair kit for cylinder no. 51506 (see details page 26) | 1 |
| 20 | 51572 | Retaining plate for cylinder gimbal | 2 |
| 21 | 51573 | Metric bolt 8 x 20 x 1.25 mm | 4 |
| 22 | 51574 | Retaining ring | 1 |
| 23 | 51575 | Locking segments for ball-joint | 2 |
| 24 | 51576 | Ball-joint seat (welded) | 1 |
| 25 | Std. | Cable clamp 3/16" | 2 |
| 26 | 190-03031 | Cable 3/16" x 72" | 1 |
| 27 | 300-40400 | Bolt 1/2" NC x 3" lg + nylon locknut | 12 |
| 28 | Std. | Hitch pin clip 5/32" | 5 |
| 29 | 150-00721 | Pin for platform pivot | 2 |
| 30 | 110-14391 | Right rear stake | 1 |
| 31 | 120-00522 | Rear panel with grain door | opt. |
| 32 | 110-02772 | Standard rear panel | 1 |
| 33 | 110-14461 | Left rear stake | 1 |
| 34 | 130-16211 | Rear panel lock | 1 |
| 35 | 300-40340 | Bolt 1/2" NC x 2" lg + nylon locknut | 2 |
| 36 | 51436 | Pin 1/2" ø x 1 3/4" lg | 1 |
| 37 | 51435 | Clevis 1/2" - 20 NF + nut | 1 |
| 38 | 110-14541 | Rod 1/2" for rear panel lock | 1 |
| 39 | 110-11541 | Side panel | 2 |
| 40 | 110-11532 | Front panel | 1 |
| 41 | 120-01652 | Platform | 1 |
| 42 | 150-02861 | Pin for rear locking mechanism | 1 |
| 43 | 300-34325 | Bolt 5/16" NC x 1 3/4" lg + nylon locknut | 1 |
| 44 | 110-11561 | Safety support bracket | 1 |
| 45 | 300-44310 | Bolt 5/8" NC x 1 1/2" lg + nylon locknut | 1 |
| 46 | 160-05971 | Safety support | 1 |
| 47 | 150-02761 | Pin 1/2" x 1 1/2" lg | 1 |
| 48 | 110-14271 | Lever for automatic locking mechanism | 1 |
| 49 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg + nylon locknut | 2 |
| 50 | 644-10000 | Directional control valve 3/8" NPT (cyl. travel limit) (see details page 25) | 1 |

DUMP TRAILER P-510/3S (cont'd)

| REF. | PART # | DESCRIPTION | QTY |
|-------------|---------------|--|------------|
| 51 | 300-34280 | Bolt 5/16" NC x 1 1/4" lg + nylon locknut | 2 |
| 52 | 190-03041 | Hose R1 3/8" x 21" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 53 | 3409-6x6 | Street elbow 3/8" | 1 |
| 54 | 190-03051 | Hose R1 3/8" x 114" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 55 | 130-20331 | Flat washer 1 5/8" i.d. x 2 1/4" o.d. | 1 |
| 56 | 110-08991 | Swivel hitch | 1 |
| 57 | 51490 | Jack 3000 lbs (includes # 58) | 1 |
| 58 | 51408 | Pin for jack | 1 |
| 59 | 51583 | Ring for side panel lock (welded) | 4 |
| 60 | 51584-G | Side panel lock (L.H.) (welded) | 2 |
| 61 | 51584-D | Side panel lock (R.H.) (welded) | 2 |
| 62 | Std. | Castle nut 1 1/2" NC | 1 |
| 63 | Std. | Cotter pin 1/4" x 3" lg | 1 |
| 64 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg | 2 |
| 65 | Std. | Quick coupler 1/2" male | 1 |

DUMP TRAILER P-50710/4E

170-02325R1



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DUMP TRAILER P-50710/4E (cont'd)

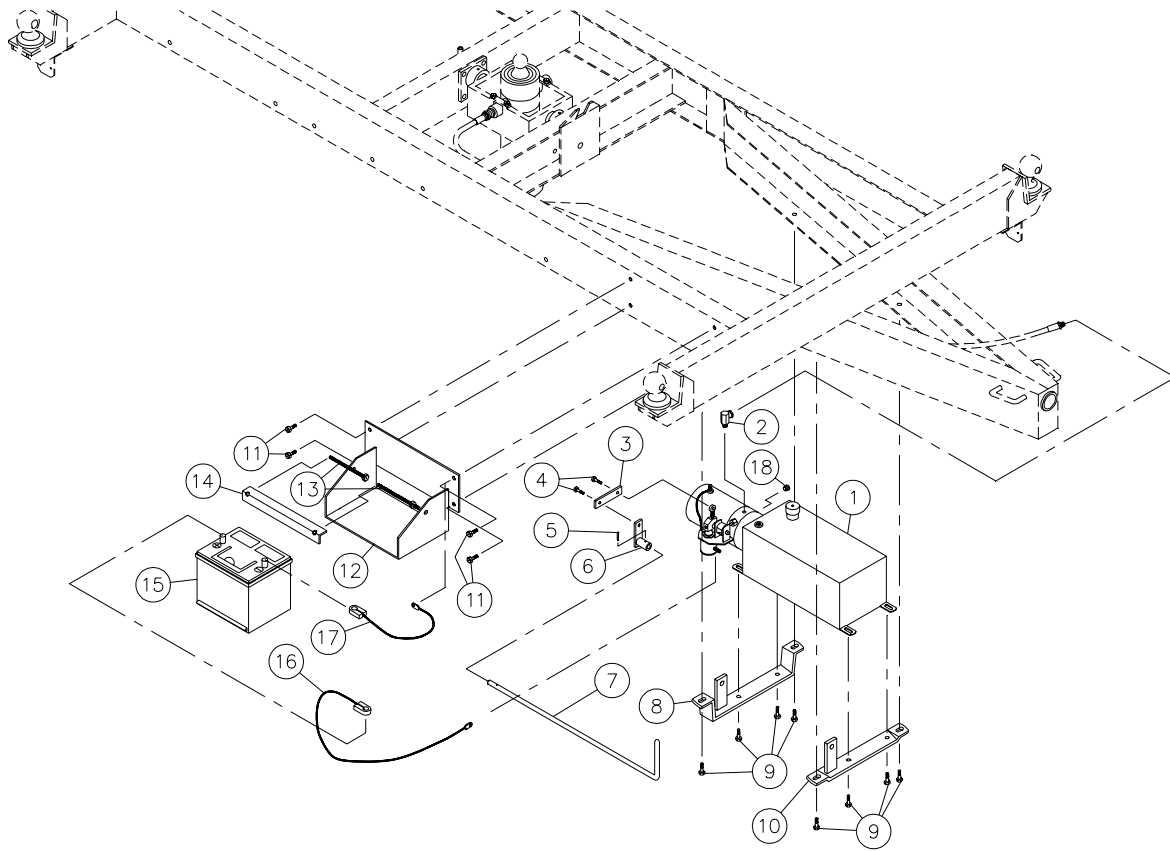
| REF. | PART # | DESCRIPTION | QTY |
|------|------------|--|------|
| 1 | 120-02231 | Main frame for P-50710/4E | 1 |
| 2 | 120-02371 | Frame to fasten road axle and lights | 1 |
| 3 | 300-20250 | Bolt 10-24 x 1" lg + nylon locknut | 2 |
| 4 | 300-40310 | Bolt 1/2" NC x 1 1/2" lg + nylon locknut | 16 |
| 5 | 300-32250 | Bolt 1/4" NC x 1" lg + nylon locknut + flat washer | 6 |
| 6 | 51610 | Cylinder gimbal | 1 |
| 7 | 110-09041 | Pivot plate | 2 |
| 8 | PN-2057514 | Road tire P205/75R14 | 4 |
| 9 | RM1465 | Rim 14 x 6 - 5 bolts | 4 |
| 10 | 9455-8x8 | Elbow (swivel) | 1 |
| 11 | 51506 | Telescopic cylinder 3 sections (see details page 26) | 1 |
| 12 | 51527 | Repair kit for cylinder no. 51506 (see details page 26) | 1 |
| 13 | 51572 | Retaining plate for cylinder gimbal | 2 |
| 14 | 51573 | Metric bolt 8 x 20 x 1.25 mm | 4 |
| 15 | Std. | Grease fitting 1/4" - 28 straight | 4 |
| 16 | 51574 | Retaining ring 2 5/8" int. | 1 |
| 17 | 51575 | Locking segments for ball-joint 2 7/8" | 2 |
| 18 | 51576 | Ball-joint seat (welded) 4 1/2" | 1 |
| 19 | Std. | Cable clamp 3/16" | 2 |
| 20 | 190-03031 | Cable 3/16" x 72" | 1 |
| 21 | 300-40400 | Bolt 1/2" NC x 3" lg + nylon locknut | 10 |
| 22 | Std. | Hitch pin clip 5/32" | 5 |
| 23 | 150-00721 | Pin for platform pivot | 2 |
| 24 | 110-14391 | Right rear stake | 1 |
| 25 | 120-00522 | Rear panel with grain door | opt. |
| 26 | 110-02772 | Standard rear panel | 1 |
| 27 | 110-14461 | Left rear stake | 1 |
| 28 | 130-16211 | Rear panel lock | 1 |
| 29 | 300-40340 | Bolt 1/2" NC x 2" lg + nylon locknut | 2 |
| 30 | 51436 | Pin 1/2" ø x 1 3/4" lg | 1 |
| 31 | 51435 | Clevis 1/2" NF + nut | 1 |
| 32 | 110-14541 | Rod 1/2" for rear panel lock | 1 |
| 33 | 110-11541 | Side panel | 2 |
| 34 | 110-11532 | Front panel | 1 |
| 35 | 120-01652 | Platform | 1 |
| 36 | 150-02861 | Pin for rear locking mechanism | 1 |
| 37 | 300-34325 | Bolt 5/16" NC x 1 3/4" lg + nylon locknut | 1 |
| 38 | 110-11561 | Safety support bracket | 1 |
| 39 | 300-44310 | Bolt 5/8" NC x 1 1/2" lg + nylon locknut | 1 |
| 40 | 160-05971 | Safety support | 1 |
| 41 | 150-02761 | Pin 1/2" x 1 1/2" lg | 1 |
| 42 | 110-14271 | Lever for automatic locking mechanism | 1 |
| 43 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg + nylon locknut | 2 |
| 44 | 644-10000 | Directional control valve 3/8" NPT (cyl. travel limit) (see details page 25) | 1 |
| 45 | 300-34280 | Bolt 5/16" NC x 1 1/4" lg + nylon locknut | 2 |
| 46 | 190-03041 | Hose R1 3/8" x 21" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 47 | 3409-6x6 | Street elbow 3/8" (male - female) | 1 |
| 48 | 190-03051 | Hose R1 3/8" x 114" lg + 1 fitting 6U 106 & 1 fitting 6U 108 | 1 |
| 49 | Std. | Cotter pin 1/4" x 3" lg | 1 |
| 50 | 130-20331 | Flat washer 1 5/8" i.d. x 2 1/4" o.d. | 1 |
| 51 | 51615 | Ball hitch 2 5/16" | 1 |
| 51 | 51525 | Swivel hitch | opt. |
| 51 | 110-07161 | Pintle hitch 3" Ø int. | opt. |
| 52 | 51490 | Jack 3000 lbs (includes # 53) | 1 |
| 53 | 51408 | Pin for jack | 1 |
| 54 | 51583 | Ring for side panel lock (welded) | 4 |

DUMP TRAILER P-50710/4E (cont'd)

| RÉF. | # DE PIÈCE | DESCRIPTION | QTE |
|------|------------|--|-----|
| 55 | 51584-G | Side panel lock (L.H.) (welded) | 2 |
| 56 | 51584-D | Side panel lock (R.H.) (welded) | 2 |
| 57 | 52077 | Parking light (yellow) | 2 |
| 58 | 51599 | Spring fixation plate | 4 |
| 59 | 51600 | Springs | 4 |
| 60 | 110-06671 | Road axle with hub and brakes | 2 |
| 61 | Std. | U-bolt 1/2" NF x 3" x 7" round + 2 nylon locknut | 8 |
| 62 | 300-42400 | Bolt 9/16" NC x 3" lg + nylon locknut | 14 |
| 63 | 51601 | Pivot plate | 8 |
| 64 | 51602 | Pivot | 2 |
| 65 | 52076 | Parking light (red) | 2 |
| 66 | 32229 | Rear flasher light | 2 |
| 67 | 51612 | Mudguard 8" x 14" | 2 |
| 68 | 316-32220 | Teck screw 1/4-14 x 3/4" lg | 4 |
| 69 | 52070 | Light for license plate | 1 |
| 70 | 301-38280 | Bolt 7/16" NC x 1 1/4" lg + nylon locknut + 2 flat washers | 2 |
| 71 | 54070 | Hook with safety lock | 2 |
| 72 | 54064 | Chain 5/16" (10000 lbs) + hook with safety lock | 2 |
| 73 | 110-14052 | Adjustable mounting support for ball hitch | 1 |
| 74 | 302-44490 | Bolt 5/8" NF x 4 1/2" lg + nylon locknut | 2 |
| 75 | 300-32220 | Bolt 1/4" NC x 3/4" lg + nylon locknut | 1 |
| 76 | 52069 | Emergency brake switch | 1 |
| 77 | 51614 | Battery 12 V 850A | 1 |
| 78 | 130-05751 | Angle | 1 |
| 79 | 110-04841 | Tightener + 1 nylon locknut 3/8" NC + 1 nylon locknut 7/16" NC | 2 |
| 80 | 300-36250 | Bolt 3/8" NC x 1" lg + nylon locknut | 1 |
| 81 | 51607 | Battery cable 4 Ga x 10" lg | 1 |
| 82 | 52074 | Self-adhesive reflector 1 1/8" x 4 1/2" (red) | 2 |
| 83 | 130-13371 | Parking light guard | 2 |
| 84 | 130-13441 | Parking light support | 2 |
| 85 | 190-02351 | Spring 3/4" o.d. x 4 1/2" lg | 1 |
| 86 | 357-57000 | Castle nut 1 1/2" NC | 1 |
| 87 | 150-02851 | Hinge pin for rear panel | 2 |
| 88 | 300-36370 | Bolt 3/8" NC x 2 1/2" lg | 2 |
| 89 | Std. | Quick coupler 1/2" male | 1 |

ELECTRIC HYDRAULIC PUMP P-510-PHE

170-00961

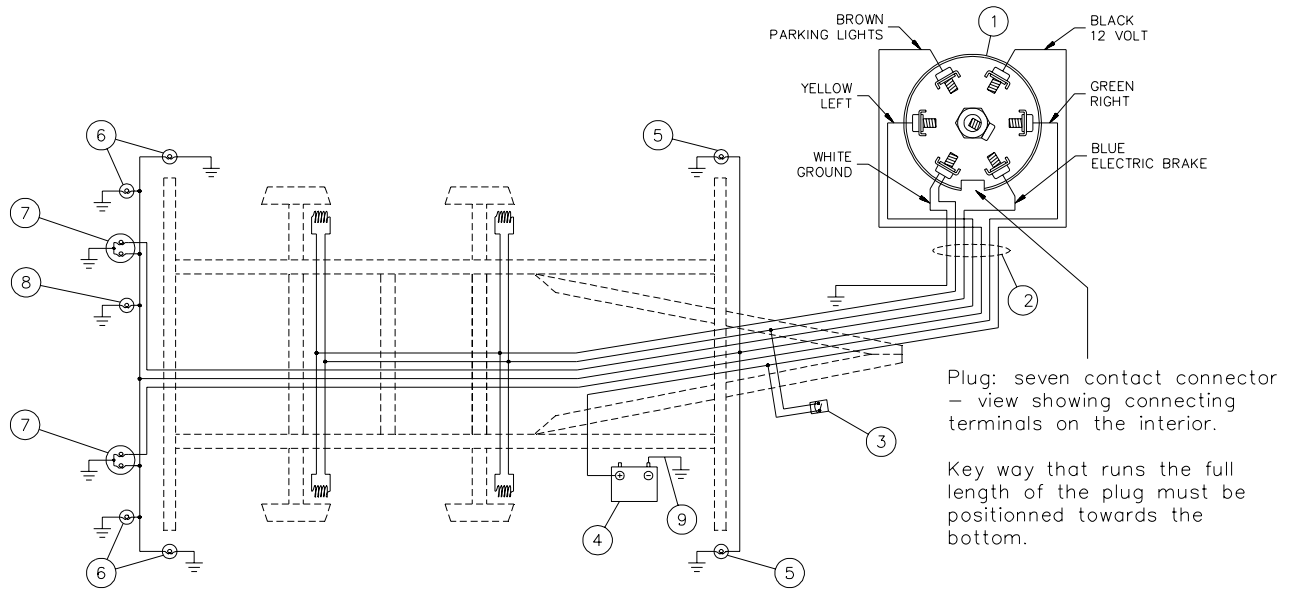


| REF. | PART # | DESCRIPTION | QTY | |
|------|-----------|---|----------------------|------------|
| | | | P-508/3S P-510/3S | P-50710/4E |
| 1 | 613-00000 | Electric hydraulic pump | 1 | 1 |
| 2 | 9405x6x6 | Fitting 90° | 1 | 1 |
| 3 | 140-05011 | Connecting rod | 1 | 1 |
| 4 | 300-34280 | Bolt 5/16" NC x 1 1/4" lg + nylon locknut | 2 | 2 |
| 5 | Std. | Roll pin 1/8" x 1" | 1 | 1 |
| 6 | 110-06801 | Pivot | 1 | 1 |
| 7 | 150-01381 | Handle 26" lg | 1 | 1 |
| 8 | 110-06781 | Rear support (for pump) | 1 | 1 |
| 9 | 300-36310 | Bolt 3/8" NC x 1 1/2" lg + nylon locknut & flat washer | 8 | 8 |
| 10 | 110-06791 | Front support (for pump) | 1 | 1 |
| 11 | 300-36250 | Bolt 3/8" NC x 1" lg + nylon locknut | 4 | - |
| 12 | 110-06772 | Battery holder | 1 | - |
| 13 | 110-04841 | Threaded rod + 1 nylon locknut 3/8" NC + 1 nylon locknut 7/16" NC | 2 | - |
| 14 | 130-05751 | Angle | 1 | - |
| 15 | 51614 | Battery 12 volts 850 Amp. | opt. | - |
| 16 | 51606 | Battery cable 4G x 30" lg | 1 | 1 |
| 17 | 51607 | Battery cable 4G x 16" lg | 1 | - |
| 18 | C1359x4 | Cap 1/4" NPTM | 1 | 1 |

8

ELECTRIC CIRCUIT P-50710/4E

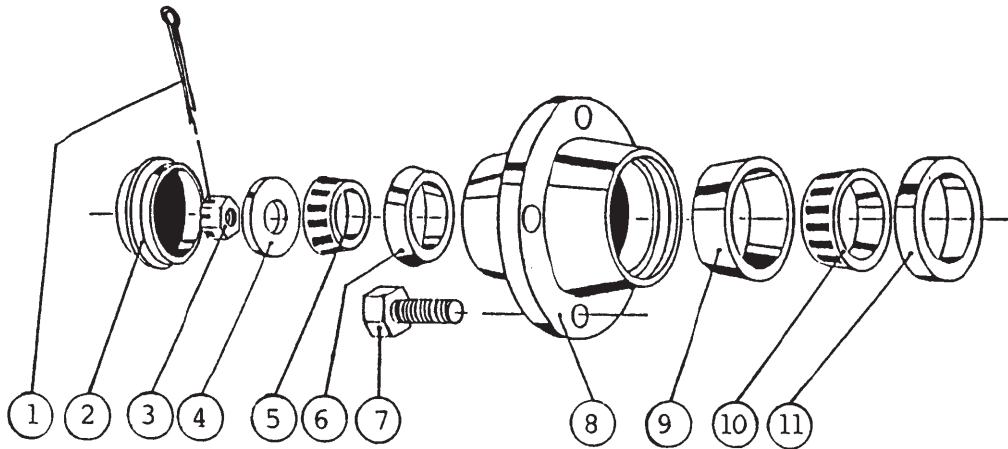
170-01731



| REF. | PART # | DESCRIPTION | QTY |
|------|--------|--|-----|
| 1 | 52065 | Connector 7 poles (trailer side) | 1 |
| 2 | 51609 | P-50710/4E conductors cable kit | 1 |
| 3 | 52069 | Emergency brake | 1 |
| 4 | 51614 | Battery 12 volts 850 Amp. | 1 |
| 5 | 52077 | Yellow parking lights | 2 |
| 6 | 52076 | Red parking lights | 2 |
| 7 | 32229 | Flashers | 2 |
| 8 | 52070 | License light | 1 |
| 9 | 51607 | Battery cable 4 GA x 10" lg | 1 |
| NI | 52078 | Connector 7 poles (vehicle side) | 1 |

8

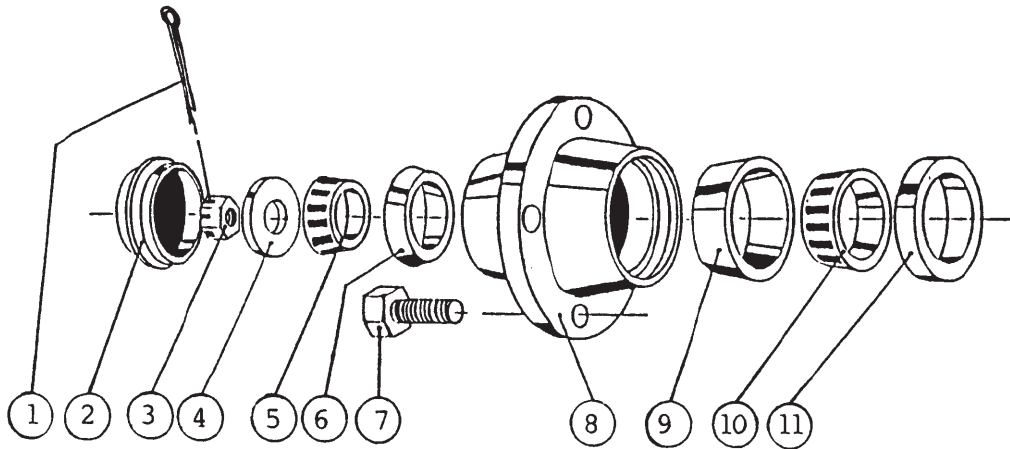
HUB H4000



| REF. | PART # | DESCRIPTION | QTY |
|------|--------|---|-----|
| 1 | Std. | Cotter pin 5/32" x 1 3/4" | 1 |
| 2 | 51528 | Dust cap D-4000 2 5/16" ø | 1 |
| 3 | 51529 | Castle nut 1" NF x 9/16" thick | 1 |
| 4 | Std. | Flat washer 1" | 1 |
| 5 | 51530 | Roller bearing Timken: cone no. LM67048 | 1 |
| 6 | 51531 | Roller bearing Timken: cup no. LM67010 | 1 |
| 7 | 51418 | Rim screw 9/16" | 6 |
| 8 | 51532 | Hub only H4000 | 1 |
| 9 | 51533 | Roller bearing Timken: cup no. LM29710 | 1 |
| 10 | 51534 | Roller bearing Timken: cone no. LM29749 | 1 |
| 11 | 51535 | Oil seal no. CR17415 | 1 |

8

HUB H5000

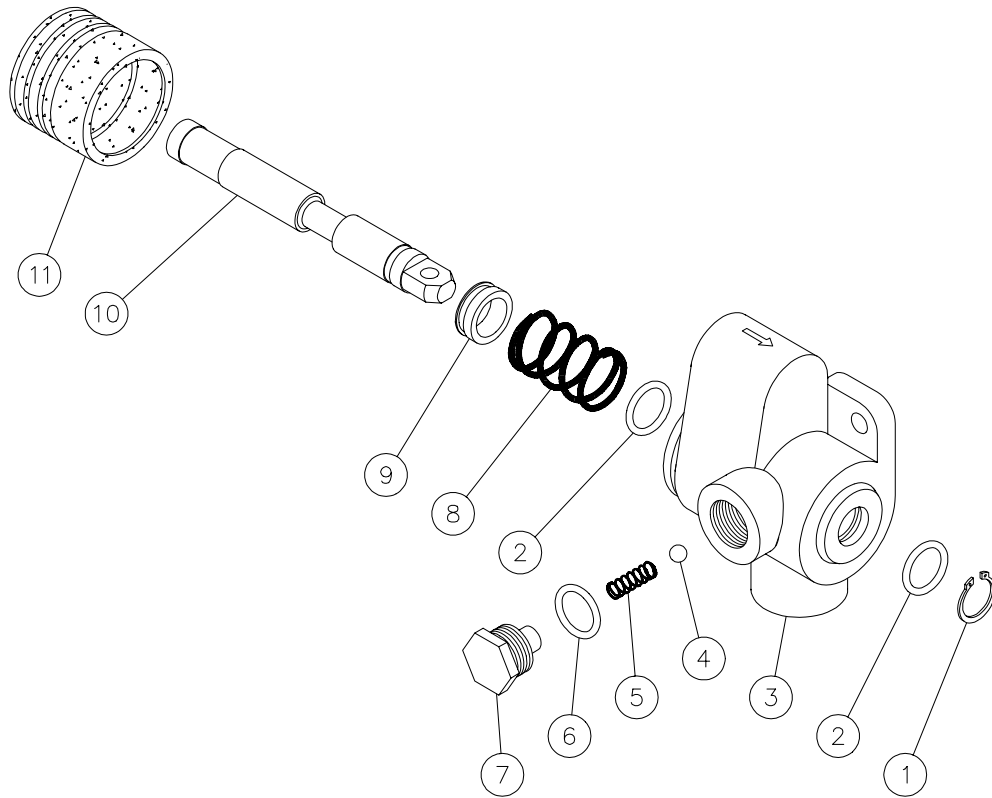


| REF. | PART # | DESCRIPTION | QTY |
|------|--------|---|-----|
| 1 | Std. | Cotter pin 5/32" x 1 1/2" | 1 |
| 2 | 51417 | Dust cap 2.570" ø | 1 |
| 3 | 51442 | Castle nut 7/8" NF | 1 |
| 4 | Std. | Flat washer 7/8" | 1 |
| 5 | 51416 | Roller bearing Timken: cone no. 4T-LM48548 | 1 |
| 6 | 51415 | Roller bearing Timken: cup no. 4T-LM48510 | 1 |
| 7 | 51418 | Rim screw 9/16" | 6 |
| 8 | 51414 | Hub only H5000 | 1 |
| 9 | 51413 | Roller bearing Timken: cup no. 4T-LM603011 | 1 |
| 10 | 51412 | Roller bearing Timken: cone no. 4T-LM603049 | 1 |
| 11 | 51443 | Oil seal no. CR20044 | 1 |

8

DIRECTIONAL CONTROL VALVE

170-00951

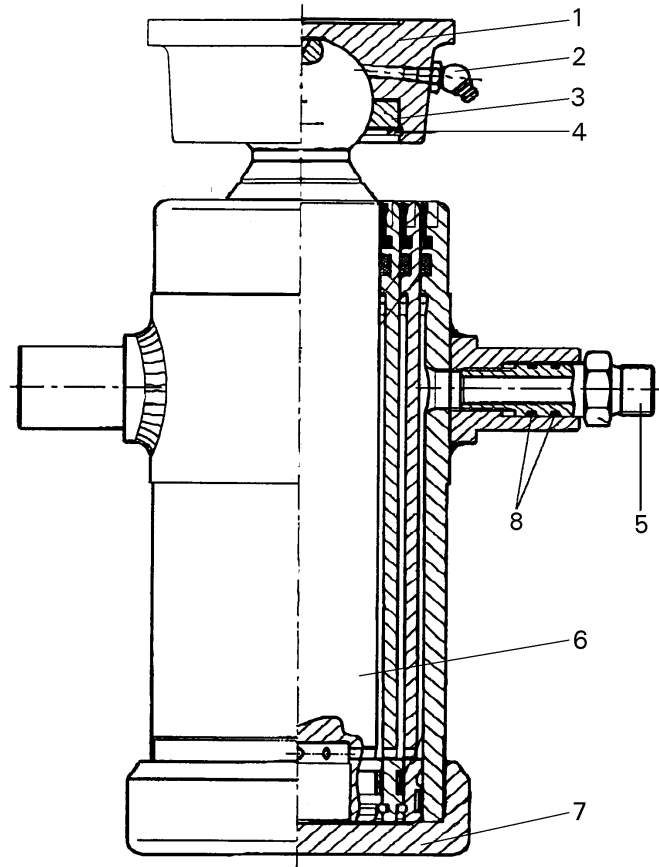


| REF. | PART # | DESCRIPTION | QTY |
|------|-----------|---------------------------------|-----|
| 1 | 649-00022 | Snap ring | 1 |
| 2 | 649-00023 | O-ring | 2 |
| 3 | 649-00024 | Body | 1 |
| 4 | 649-00025 | Ball for pressure valve | 1 |
| 5 | 649-00026 | Spring for pressure valve | 1 |
| 6 | 649-00027 | 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

TELESCOPIC CYLINDER # 51506

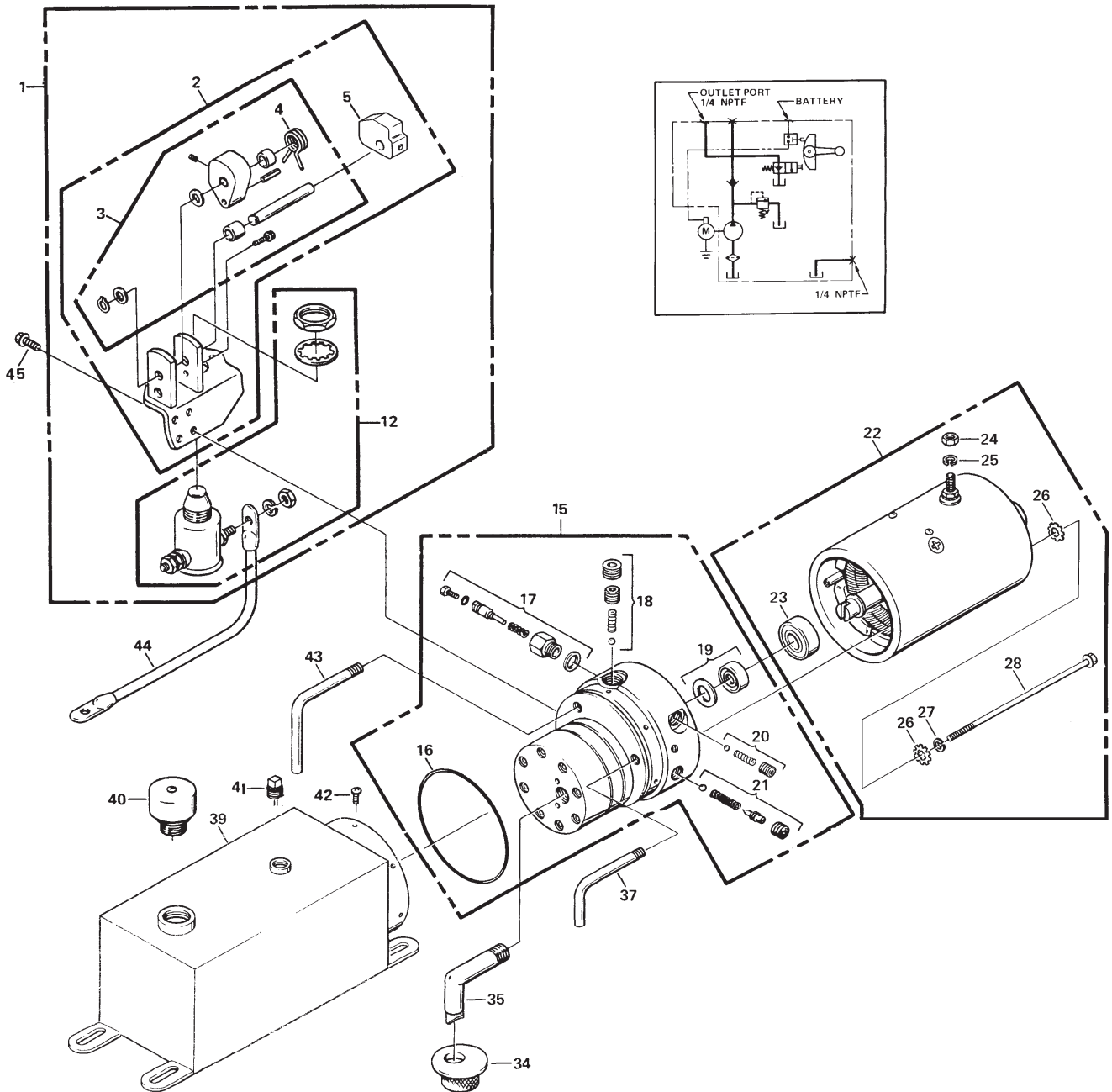


| REF. | PART # | DESCRIPTION | QTY |
|------|--------|--|-----|
| 1 | 51576 | Ball joint seat (welded) | 1 |
| 2 | Std. | Grease fitting 1/4"-28 straight | 1 |
| 3 | 51575 | Locking segments for ball-joint 2 7/8" | 1 |
| 4 | 51574 | Retaining ring (interior), 3.175" | 1 |
| 5 | 51586 | Connector | 1 |
| 6 | 51587 | Piston with ball | 1 |
| 7 | 51588 | Threaded cylinder base | 1 |
| 8 | 51589 | Seal kit for connector | 1 |
| NI* | 51527 | Repair kit for cylinder | 1 |

*NI = Not illustrated
 * Some parts might not be available apart.

8

POWER PACK # 51536










POWER PACK # 51536 (cont'd)

| REF. | PART # | DESCRIPTION | QTY |
|-------------|---------------|---|------------|
| 1 | 51537 | Bracket assembly with mounting plate and start switch | 1 |
| 2 | 51538 | Bracket assembly with mounting plate | 1 |
| 3 | 51539 | Bracket assembly only | 1 |
| 4 | 51540 | Torsion spring | 1 |
| 5 | 51541 | Block | 1 |
| 12 | 51542 | Start switch | 1 |
| 15 | 51543 | Pump assembly (gear code 05) | 1 |
| 16 | 51544 | Industrial o-ring (3 5/8" x 3 7/8" x 1/8") | 1 |
| 17 | 51545 | Plunger | 1 |
| 18 | 51546 | Main check valve | 1 |
| 19 | 51547 | Seal and gasket | 1 |
| 20 | 51548 | Descending check valve | 1 |
| 21 | 51549 | Relief valve | 1 |
| 22 | 51550 | Electric motor 12V DC | 1 |
| 23 | 51551 | Ball bearing | 1 |
| 24 | Std. | Nut 5/16"-24 | 1 |
| 25 | Std. | Lock washer 5/16" | 1 |
| 26 | Std. | Star washer 1/4" | 4 |
| 27 | Std. | Lock washer 1/4" | 2 |
| 28 | Std. | Bolt 1/4"-20 x 6 1/2" | 2 |
| 34 | 51552 | Filter | 1 |
| 35 | 51553 | Filter (suction tube) 3/8" NPT 90° | 1 |
| 37 | 51554 | Return tube 1/8" | 1 |
| 39 | 51555 | Reservoir 6 1/4" x 7" x 15", 510 in ³ usable | 1 |
| 40 | 51556 | Vent plug | 1 |
| 41 | 51557 | Square head plug | 1 |
| 42 | Std. | Screw 10-24 x 3/8" | 6 |
| 43 | 51558 | Return tube (1/8 NPT) | 1 |
| 44 | 51559 | Insulated cable with lugs 9" 6 gauge | 1 |
| 45 | Std. | Flange hex. head screw (tap tite) 1/4"-20 x 5/8" | 4 |






* Some parts might not be available apart.

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.

Hydraulic cylinders are covered by the manufacturer 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 the result of an accident, is 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.
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