TABLE OF CONTENTS

WARNING

IF INCORRECTLY USED, THIS EQUIPMENT CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE EQUIPMENT SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ THE INSTALLATION INSTRUCTIONS AND THE OPERATOR'S MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE EQUIPMENT.

SECTION I
INTRODUCTION

INTRODUCTION

This instruction manual has operation and maintenance information for DuraClass Model HPT 53 & 63 telescopic type hydraulic hoists.

It's been prepared to acquaint you with the design features of the unit, and to instruct you in its proper operation and maintenance.

Read this manual carefully before you operate or service one of the HPT telescopic hoists. Remember that you're working with heavy equipment that can injure you or someone else. You can lessen the chance of injury by following the procedures in this manual, carefully.

All Operator/Service people should review it carefully and become familiar with the contents. This manual is to be retained in the glove box of the vehicle equipped with this hoist for future reference for Operator and Maintenance Personnel. If anyone else besides, yourself operates or services this equipment, make sure they read this manual and are instructed with all the safety procedures related to this equipment.

HOIST DESCRIPTION

The HPT 53 and 63 series hoists are single cylinder head mount frameless telescopic hoists.

These hoists are made for use with standard bodies from 11'-0" (3.353 m) to 19'-0" (5.791 m) long on tandem axle chassis.

Figure 1 shows a typical HPT 53 or 63 series type hoist.

Figure 2 shows the HPT 53 -90 hoist.

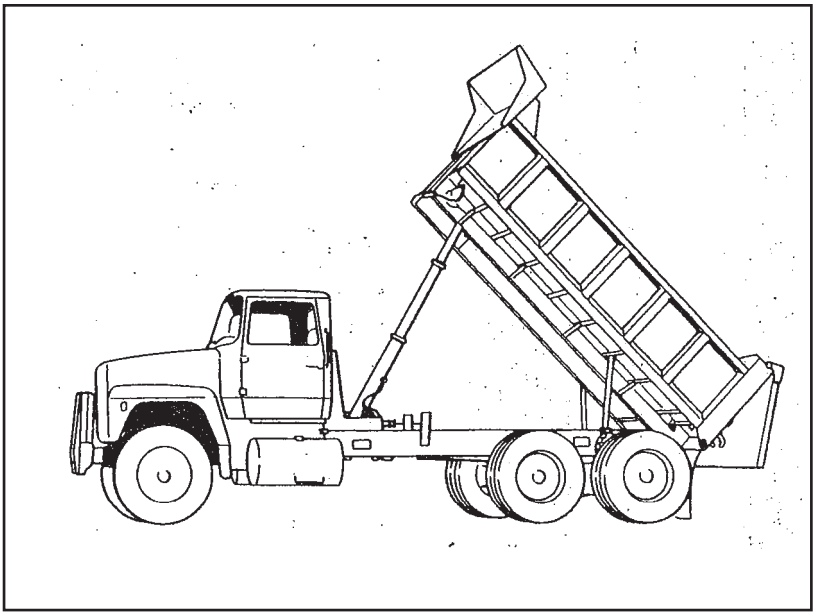


Figure 1. Typical HPT 53 or 63 Series Hoist

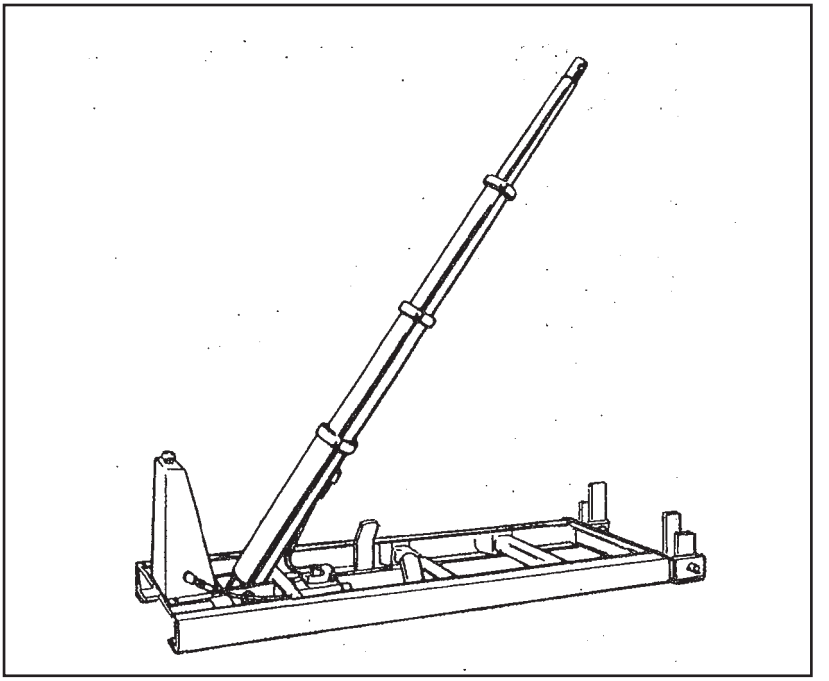


Figure 2. Typical HPT 53-90 Hoist

SECTION II

OPERATING PROCEDURES

SAFETY PRECAUTIONS

Before you start the hoist, familiarize yourself with the following safety precautions.

HOIST CAPACITY

⚠ CAUTION

Do not exceed hoist capacities shown. Excessive loads will result in dangerous operating conditions.

HOIST MODEL	BODY LENGTH		OVERHANG		CAPACITY BODY AND PAYLOAD	
	ft.	m	in.	mm	tons - U.S.	tons - metric
HPT 53-100	11.0	3.353	6	152	21.0	19.1
	11.0	3.353	12	305	24.0	21.8
	11.5	3.505	6	152	20.0	18.1
	11.5	3.505	12	305	22.5	20.4
	12.0	3.658	12	305	21.0	19.1
	12.0	3.658	18	457	24.0	21.8
HPT 53-110	12.0	3.658	6	152	21.0	19.1
	12.0	3.658	12	305	23.5	21.3
	12.5	3.810	6	152	20.0	18.1
	12.5	3.810	12	305	22.0	20.0
HPT 53-120	12.5	3.810	6	152	20.5	18.6
	13.0	3.962	6	152	19.5	17.7
	13.0	3.962	12	305	22.0	20.0
	14.0	4.267	12	305	20.0	18.1
	14.0	4.267	18	457	22.0	20.0
HPT 53-130	15.0	4.572	12	305	20.5	18.1
	15.0	4.572	18	457	22.0	20.0

HOIST MODEL	BODY LENGTH		OVER-HANG		CAPACITY BODY AND PAYLOAD	
	ft.	m	in.	mm	tons - U.S.	tons - metric
HPT 63-120	13	3.962	6	152	32.5	29.5
	13	3.962	12	305	36.0	32.7
	14	4.267	12	305	33.0	29.9
	14	4.267	18	457	36.5	33.1
HPT 63-130	15	4.572	12	305	33.0	29.9
	15	4.572	18	457	36.0	32.7
HPT 63-140	16	4.877	12	305	32.5	29.5
	16	4.877	18	457	35.0	31.8
HPT 63-160	18	5.486	12	305	31.5	28.6
	18	5.486	18	457	33.5	30.4
	19	5.791	12	305	30.5	27.7
	19	5.791	18	457	32.0	29.0

ABOVE CAPACITIES ARE BASED ON LEVEL LOADING. WITH CENTER OF GRAVITY AT MIDPOINT OF BODY, DUMP ANGLE APPROXIMATELY 50º

Federal regulations prohibit the combined weights of the truck chassis, hoist and platform/body, and payload to exceed the Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR) of the total vehicle.

CAUTION DECAL INDEX

The following illustration shows the location of all caution and warning decals. Below it and on the facing page you will find a listing of all the cautions contained on the decals. Familiarize yourself with all the operating cautions before you operate the hoist.

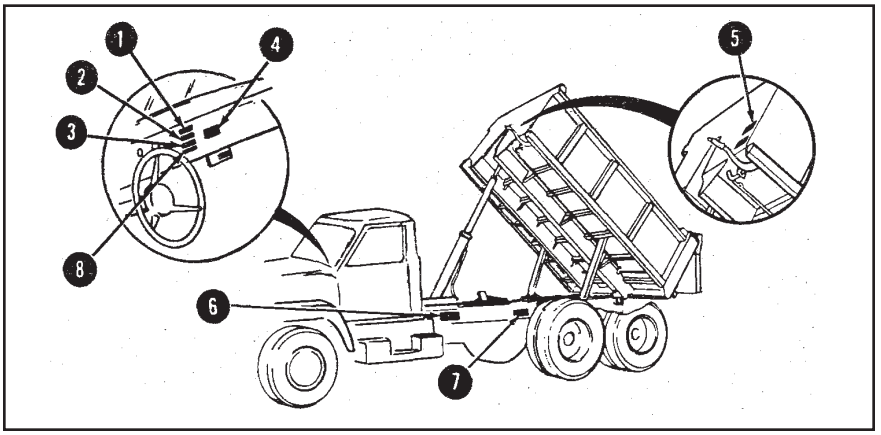


Figure 3. Caution and Warning Decals

1

WARNING

DO NOT OPERATE OR SERVICE THIS MACHINE UNTIL YOU HAVE READ AND UNDERSTAND THE OPERATION AND MAINTENANCE MANUAL SUPPLIED WITH THIS EQUIPMENT. MANUALS CAN ALSO BE OBTAINED FROM A DURACLASS DISTRIBUTOR.

2

⚠ CAUTION

THIS VEHICLE EQUIPPED WITH HOIST OPERATING LEVER LOCKOUT. HOIST CONTROL LEVER MUST BE ENGAGED IN NEUTRAL POSITION WITH LEVER LOCKOUT ENGAGED IN LOCK POSITION WHENEVER HOIST IS NOT BEING OPERATED.

3

⚠ CAUTION

WHENEVER THE BODY IS IN ANY ELEVATED OR RAISED POSITION IT MUST BE SECURELY PROPPED OR BLOCKED SO IT CANNOT FALL ON ANYONE.

4

⚠ CAUTION

For detailed PTO and HOIST operating and maintenance instructions, see manual. Whenever vehicle is in motion the HOIST control must be in the neutral position with lever lockout engaged in the “lock” position and the PTO control in the OUT position.

5

⚠ CAUTION

1. DO NOT operate this equipment until you have read and understand the “Operations Manual” or have been properly trained in its operation.

2. Whenever vehicle is in transit, the hoist control lever MUST BE in neutral with lever lockout engaged in the “lock” position and the PTO disengaged.

3. Tailgate controls MUST BE locked when the vehicle is in transit.

4. The vehicle MUST BE on level ground before dumping.

5. DO NOT dump on ground that has been recently excavated or filled without being properly compacted.

6. Operator MUST REMAIN at the controls during the dumping cycle.

7. Tailgate controls MUST BE released before the front of the body is 2 feet (0.6 m) above the chassis frame.

8. When operating, DO NOT allow anyone to stand in or move through the area where the hoist operates, or into an area where an upset load might fall.

9 When the truck is stored or not in use, the body MUST BE in the full lowered position, and resting on the chassis or hoist frame. Ignition key SHOULD BE removed from the ignition switch and the cab locked to prevent tampering by unauthorized personnel.

10. Whenever the body is in any elevated or raised position for any repairs or adjustments, it MUST BE securely propped or blocked so it can not fall on anyone.

6 **⚠ CAUTION**

Whenever the body is in any elevated or raised position it must be securely propped or blocked so it can not fall on anyone.

Be sure that body is unloaded before using body props.

7 **⚠ CAUTION**

TWO PROPS ARE INSTALLED ON BODIES AND BOTH MUST BE USED.

TO USE:

1. RAISE BODY TO A HEIGHT WHERE PROPS CAN BE SWUNG INTO POSITION.
2. BE SURE HOIST CONTROL VALVE IS IN THE NEUTRAL POSITION WITH THE LEVER LOCKOUT ENGAGED IN THE LOCK POSITION.

3. REMOVE TRANSIT POSITION BODY PROP RETAINERS AND SWING BODY PROPS TO SUPPORT POSITION.
4. LOWER BODY UNTIL BODY PROPS REST ON CHASSIS RAIL AND VISUALLY INSPECT TO SEE THAT PROPS ARE SECURE BEFORE PERFORMING ANY WORK. BE SURE HOIST CONTROL VALVE IS IN THE NEUTRAL POSITION WITH LEVER LOCKOUT ENGAGED IN THE LOCK POSITION.

TO STORE:

5. RAISE BODY SLIGHTLY. BE SURE HOIST CONTROL VALVE IS IN THE NEUTRAL POSITION WITH THE LEVER LOCKOUT ENGAGED IN THE "LOCK" POSITION.
6. RETURN PROPS TO TRANSIT POSITION AND INSTALL RETAINERS.

8

WARNING

THIS VEHICLE IS EQUIPPED WITH A BACKUP ALARM AND BODY RAISED WARNING LIGHT. BEFORE USING VEHICLE, CHECK TO ENSURE THEY ARE OPERATING PROPERLY.

STORAGE CAUTION

CAUTION

In all cases, when truck is stored or not in use, the body must be in the fully lowered position and resting on the truck chassis or hoist frame. Key should be removed from ignition and the cab locked to prevent tampering by unauthorized people.

LOWERING A RAISED DUMP BODY

PROCEDURE FOR LOWERING A RAISED DUMP BODY WHEN THE IN-CAB OPERATING CONTROLS BECOME INOPERATIVE OR IF RAISED DUMP BODY WILL NOT LOWER BECAUSE OF ANY OTHER REASON.

NEVER ENTER BETWEEN A RAISED DUMP BODY AND CHASSIS FRAME AS IT MAY DESCEND AND CAUSE INJURY OR DEATH. READ AND UNDERSTAND THE FOLLOWING INSTRUCTIONS BEFORE PROCEEDING. RETAIN THIS BULLETIN WITH OWNERS, OPERATOR'S AND MAINTENANCE MANUAL IN THE CHASSIS CAB FOR FUTURE REFERENCE.

1. Make sure all persons are cleared atleast 30' away from the vehicle to avoid potential injury or death while performing the following steps, unless otherwise indicated herein.

2. Set vehicle parking break and chock or block wheels securely so the vehicle cannot move.

3. Either allow the load to finish dumping, or if part of load is stuck in body, use a backhoe or front end loader to remove balance of load. extrme caution NOTE! Use not to overturn vehicle.

4. Block the raised body with three (3) 6”x6” timbers of sufficient length or railroad ties as shown to support body (and load if unable to remove load).

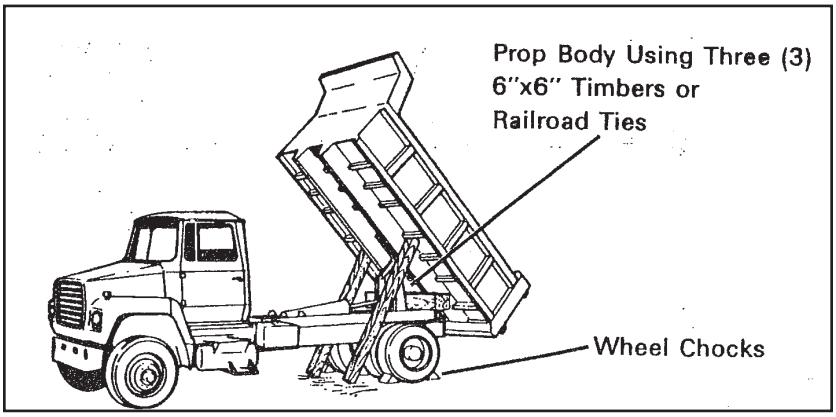


Figure 4. Blocking the Body.

5. Connect a chain or cable sling to an overhead crane, truck crane, large front end loader or other lifting device having adequate capacity to safely hold and lower the body and load.

6. Attach the chain or cable device with hooks, all of adequate lift rating, to the body rubrail just behind the front crossmember as shown. Snug up the tension on the sling with the crane, without relieving the pressure from the body supporting timbers.

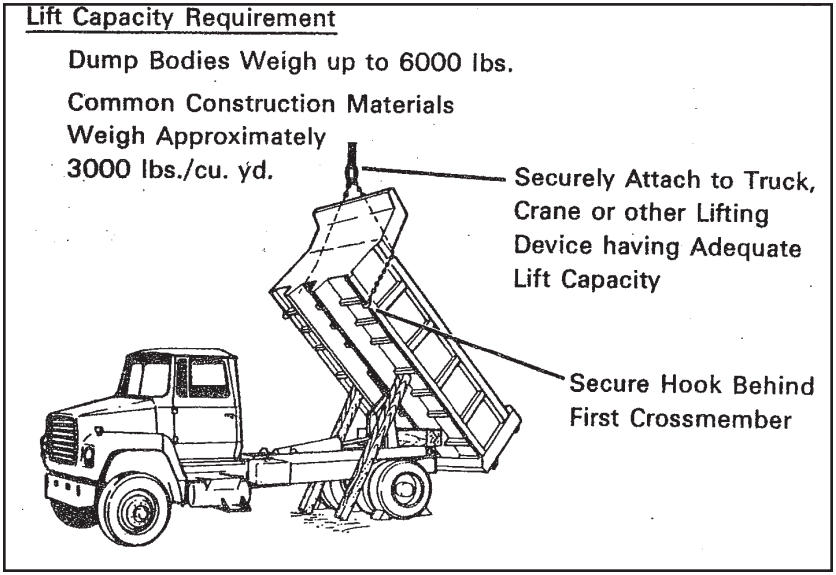


Figure 5. Lifting the Body

7. With the chocking and timber blocking still in place, from a position on the ground, under the chassis frame, shift the control valve, at the valve location, into the "Lower" position. If the valve is spring centered, wire or lock the valve in the "Lower" position.

8. To prevent injury or death, move out from under the truck chassis and clear all people from the area where the raised body could potentially overturn. Use the crane mechanism to slightly raise the dump body to relieve the pressure from the body supporting timbers. Be sure the crane lifting device is securely attached to the body and that both the crane and body are stable before removing the body supporting timbers. Remove body supporting timbers, being sure not to place your body or limb between the dump body and chassis frame.

9. Using the crane, slowly lower the body in a controlled manner until it is resting on the chassis frame.

10. Proceed to perform the repairs or replacement necessary to correct the control mechanism failure, or other malfunction, by qualified and trained personnel, such as your authorized DuraClass Distributor.

IF PROPER EQUIPMENT IS NOT AVAILABLE OR IF YOU ARE INEXPERIENCED IN PERFORMING THE ABOVE, DO NOT ATTEMPT TO LOWER THE BODY OR ATTEMPT REPAIRS. IN EITHER CASE GET EXPERIENCED HELP AND PROPER EQUIPMENT BEFORE PROCEEDING. IF YOU SHOULD HAVE ANY QUESTIONS CONCERNING ANY-THING CONTAINED IN THESE INSTRUCTIONS, PLEASE CONTACT DURACLASS FIELD SERVICE DEPT. (414) 647-3289.

OPERATING INSTRUCTIONS

Refer to figure 5, 6 or 7 for type of controls supplied with your hoist and the operation of the hoist control safety lockout.

POWER TAKE-OFF OPERATION WITH MANUAL TRANSMISSION

⚠ CAUTION

Disengage PTO when hoist is not in use or when traveling on the highway.

To Engage Power Take-Off (PTO)

1. Place transmission shift lever in NEUTRAL.
2. Set parking brake.
3. Depress clutch pedal.
4. Shift PTO into gear.
5. Release clutch pedal.

Equipment is now ready to operate.

To Disengage PTO

1. Depress clutch pedal.
2. Shift PTO out of gear.
3. Release clutch pedal.
4. Release parking brake.

Truck is now ready to move.

POWER TAKE-OFF OPERATION WITH ALLISON TRANSMISSION

⚠ CAUTION

Disengage PTO when hoist is not in use or when traveling on the highway.

To engage Power Take-Off (PTO)

1. Stop the truck and set the hand brake.
2. With the Allison transmission in a gear position to provide a PTO output at 45 to 60% of engine speed, engage PTO.
   NOTE: Do not exceed RPM on the pump.
   NOTE: If gears do not mesh, it may be necessary to let the truck creep slightly in gear while putting slight pull on the PTO control.
3. After PTO is engaged, move transmission shift lever to NEUTRAL.

Equipment is now ready to opertate.

To disengage PTO

1. Move transmission shift lever into any gear position and shift PTO out of gear.
2. Move transmission shift lever to NEUTRAL.

Truck is now ready to move..

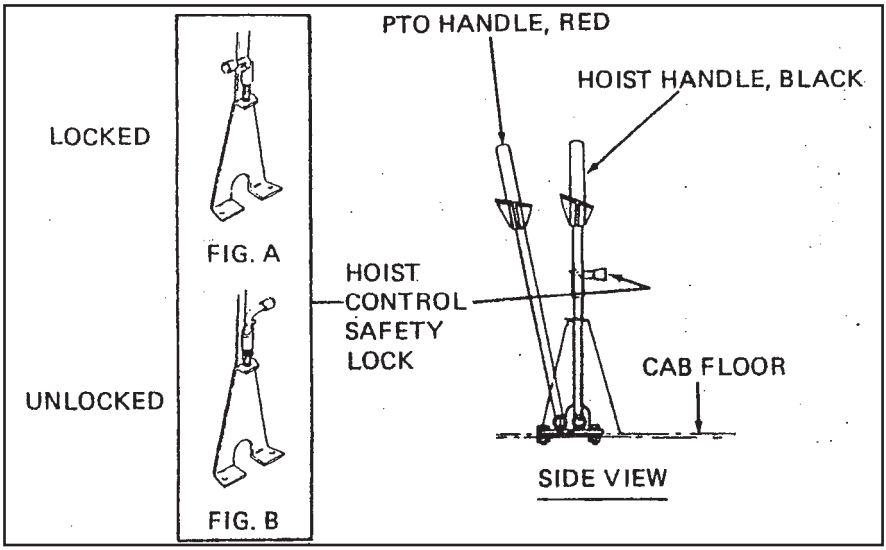


Figure 6. Standard Hoist Controls

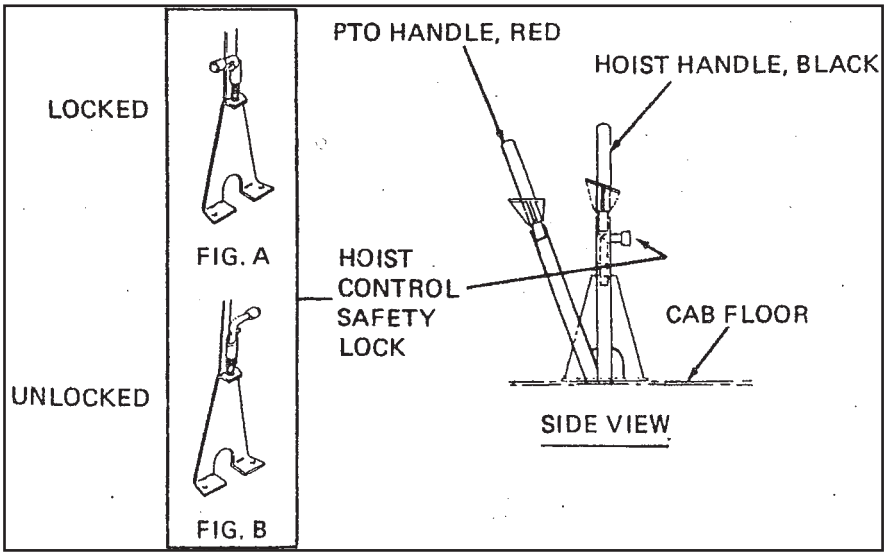


Figure 7. Optional Flat Controls

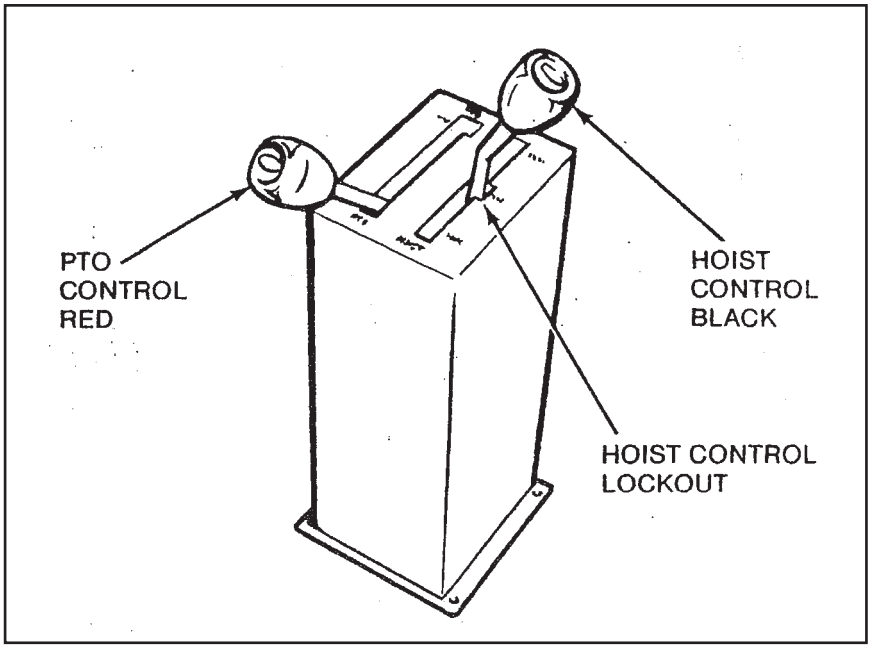


Figure 8. Optional Console Controls

HOIST OPERATION

⚠ CAUTION

Whenever traveling on the highway, the HOIST control in cab must be in the neutral position with the lever lockout engaged in the "lock" position and the PTO disengaged.

To Raise Body — With PTO engaged and truck engine running at a speed slightly faster than idle, release lever lock and move valve control in cab to RAISE position (rearward).

To Hold Body — To hold in any position, move valve control in cab to HOLD position. If body will be held in position any length of time, shift PTO out of gear, and re-engage lever lock.

To Lower Body — If lever lock is engaged, release and move valve control in cab to LOWER position (forward). When body is firmly resting on chassis frame, disengage PTO and re-engage hoist control lever lock.

TRAVELING INSTRUCTIONS

Observe the following cautions when traveling with your truck

⚠ CAUTION

Disengage PTO when hoist is not in use or when traveling on the highway. Do not move truck (loaded or unloaded) unless the body is lowered and resting on truck frame.

⚠ CAUTION

Whenever traveling on the highway, the HOIST control in cab must be in the neutral position with the lever lockout engaged in the "lock" position and the PTO disengaged. Before traveling, be sure "body raised" indicator light is not on.

SECTION III

MAINTENANCE INSTRUCTIONS

GENERAL

Maintenance people whose job is to service and maintain this equipment should have a basic understanding of the equipment and normal sequence of operation. Refer to Sections I and II of this manual.

Maintenance in this section is divided into two parts — Preventive Maintenance and Corrective Maintenance (Troubleshooting).

Preventive maintenance routines keep the equipment in proper working condition. Preventive maintenance is not only desirable, but is necessary, since scheduled inspection ensures continued trouble-free operation of the equipment. It also prevents or at least detects at an early stage, mechanical or hydraulic troubles that might otherwise develop into equipment malfunction.

Corrective Maintenance (Troubleshooting) is the examination and repair or replacement of the part or parts of the equipment that resulted in equipment malfunction.

MAINTENANCE SAFETY

⚠ CAUTION

When any repairs or adjustments are made and body is fully or partly raised, body must have props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the "lock" position and the PTO disengaged.

The following illustrations show how to correctly block the body when it is in a raised position.

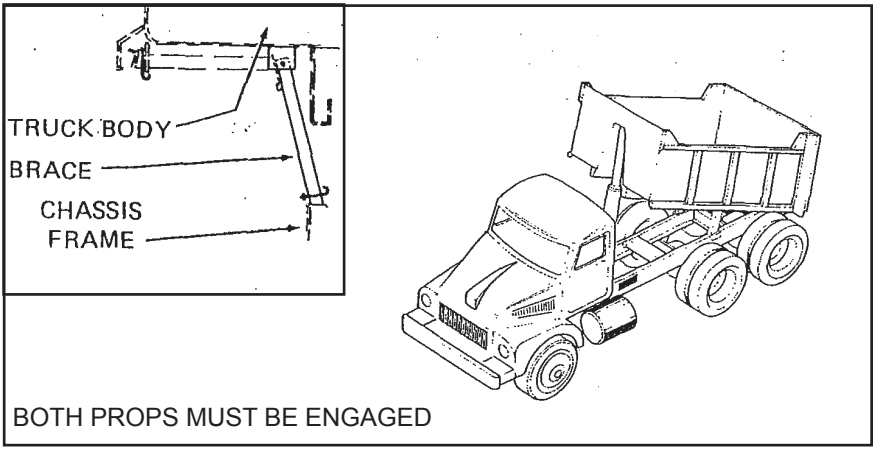
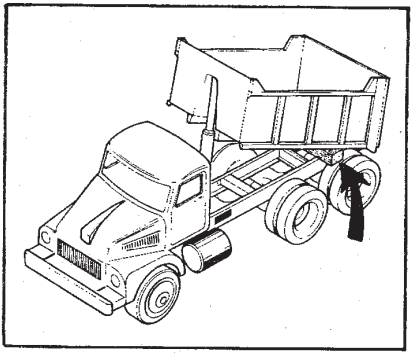


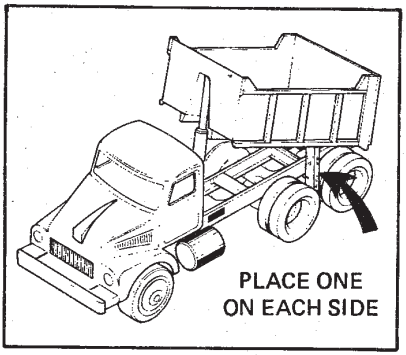
Figure 9. Blocking the Body with Factory Installed Props

⚠ CAUTION

Whenever the body is in any elevated or raised position it must be securely propped or blocked so it cannot fall on anyone.

The illustration above shows how to block the body using the props supplied with the hoist. Alternate methods for blocking are shown in following illustrations.





Railroad tie or wood piece of approximate size 6” x 6” x 5 ft (14x 14x 150 cm) to extend approximately 1 ft (30 cm) each side of frame.

Place two 4” x 4”’s (9 x 9 cm) approximately 5 ft (150 cm) long between tandem tires and block securely against body understructure.

Figure 10. Alternate Blocking Methods

PREVENTIVE MAINTENANCE INSTRUCTIONS

DAILY MAINTENANCE

Inspect the truck at the beginning of each shift to make sure all caution and warning decals are legible. If decals are not legible, clean them. If cleaning the decals does not make them legible, install new decals.

Refer to the illustration below for location of decals and part numbers if replacement is necessary. Decals can be procured through your authorized DuraClass Distributor.

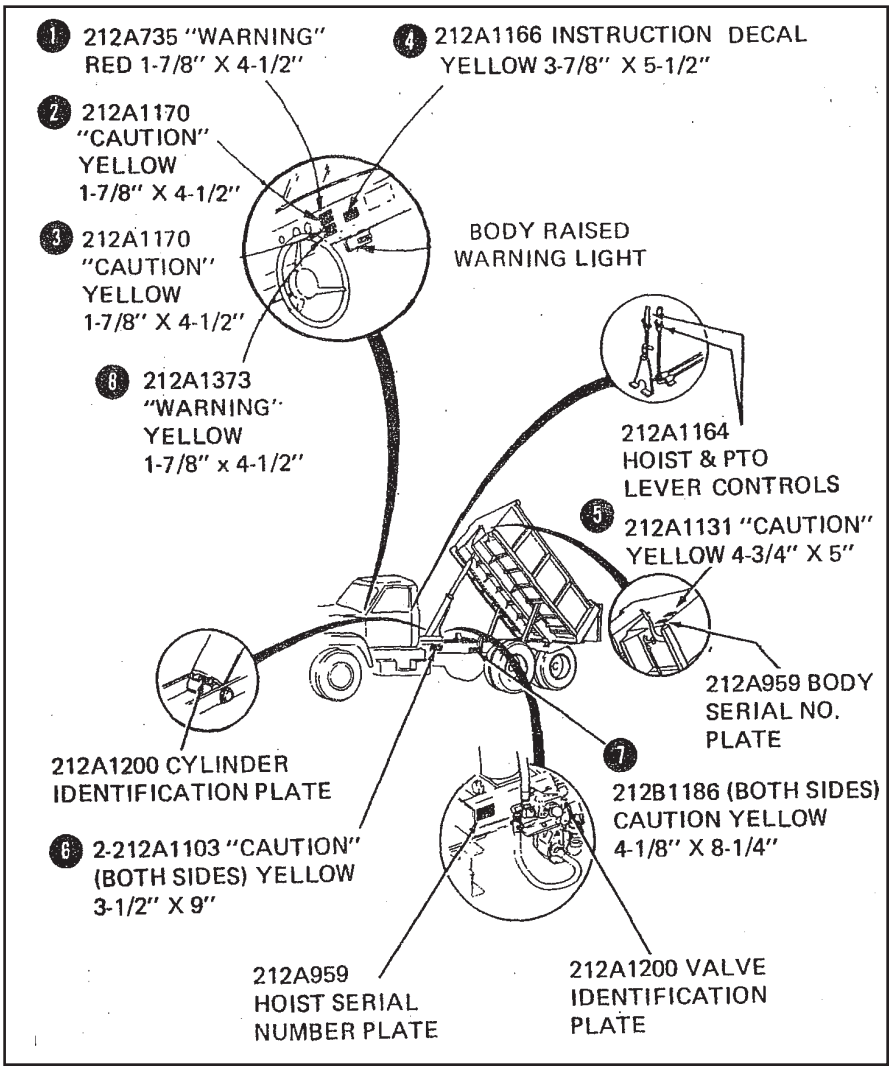


Figure 11 . Decal and Serial Number Plate Location

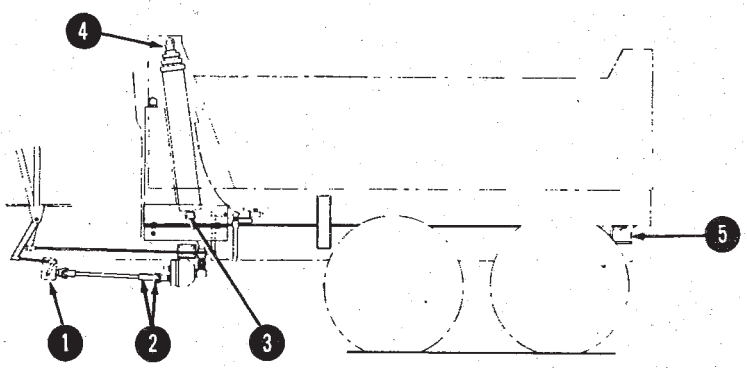
WEEKLY MAINTENANCE — LUBRICATION

⚠ CAUTION

When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the “lock” position and the PTO disengaged.

1. The hoist should be lubricated at least once a week. See figure 10. Use the same grease as recommended for the chassis. Use oil on control rod ends, cable, cable levers and link ends.

2. Check hydraulic oil level in reservoir for proper level as follows:
   Extend cylinder to full stroke, block body securely and check oil level in tank by removing oil level plug (1/4 NPT) from L.H. side of tank. Oil should be level with plug opening. Add oil if necessary, see page 16 for recommended oil type. Replace pipe plug and lower body.



1) U-Joint at PTO 1
2) U-Joint at Pump (Slip) 3
3) Cylinder - Base End 2
4) Cylinder - Rod End 1
5) Rear Hinges..... 1*
Control Linkage Points.....6 Locations
* Each Side

USE GREASE RECOMMENDED BY CHASSIS MANUFACTURER

Figure 12. Lubrication Points

MONTHLY MAINTENANCE CHECKS

⚠ CAUTION

When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the "lock" position and the PTO disengaged.

1. Check bolt tightness at tie downs, valve, PTO, tank, pump brackets. pump, cab controls, and body guides. Tighten as necessary. Self- locking nuts are used throughout unit, and any time a replacement is needed, it must be replaced with an equal part.

2. Check structural welds at rear hinge, lift brackets and hoist frame for cracks due to fatigue or overload.

3. Inspect drive line for possible wear and check set screws for tightness and lock wire in position.

4. Check and replace cotter pins in shaft ends if necessary.

5. Purge hydraulic system of entrapped air. With vent valve on cylinder closed and top doghouse cover removed, raise body slowly until body is approximately 12 inches (300 mm) above chassis at the front. Put the operating valve in neutral. With another man in the body, open the vent valve at the top of the cylinder until all air is purged. Then close the vent valve. Extend cylinder to full stroke, block body securely and check oil level in tank by removing oil level plug (1/4 NPT) from L.H. side of tank.Oil should be level with plug opening. Add oil if necessary. Replace pipe plug, lower body. It may be necessary to repeat the purging procedure until all air is removed from the system. Reinstall top doghouse cover.

6. Check color of oil for possible contamination. If oil appears thick or dirty, drain system and replace. See "Hydraulic Oil Change" for proper type oil.

7. Check for oil leaks in all hydraulic fittings and hoses. Retighten fittings or replace hoses as necessary.

8. Inspect valve pull out cable for proper operation.

9. When equipped with oil filter, element must be changed after first month of operation (approximately 50 hours). Thereafter, see six month maintenance section.

6-MONTHS MAINTENANCE — HYDRAULIC OIL CHANGE

⚠ CAUTION

When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the "lock" position and the PTO disengaged.

1. We recommend that the oil in the system be changed at least twice a year.

When adding or replacing oil, use a hydraulic oil with an SAE viscosity rating of 10W that contains antifoamant, rust and oxidation inhibitors, and an antiwear additive. If a hydraulic oil is not available use an API engine oil, designation SE, with an SAE viscosity rating of 10W.

DO NOT USE low viscosity naphtha base motor oil, hydraulic brake fluid, or aircraft hydraulic fluid, HY-TRAN or other transmission fluid.

2. Oil filter to be changed routinely at each half year interval (approximately 500 hours).

CORRECTIVE MAINTENANCE (TROUBLESHOOTING)

The operation of any mechanical or hydraulic system depends on the life span of the various parts. Some parts should last indefinitely, others may not. This section is a general guide to the causes of possible equipment malfunction.

Safety

Respect the potential danger of the equipment. Observe all "Safety Precautions" while working on the equipment.

⚠ CAUTION

When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the “lock” position and the PTO disengaged.

Test Equipment

Use high quality test equipment. Any gages or instrumentation used in checking hydraulic systems in these hoists must be capable of withstanding 3000 psi (20 684 kPa) minimum pressure.

Trouble Chart

To aid maintenance people in finding and correcting a problem, a trouble chart has been included.

TROUBLE CHART

Trouble	Cause	Remedy
⚠ CAUTION When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the "lock" position and the PTO disengaged.		
1) Failure to raise load.	1 a) Insufficient oil in tank.	1a) With body fully raised oil should flow out of oil level plug. (This leaves 4" (101.6 mm) of oil in tank.) Add oil as required. See page 16 for recommended oil type.
	1 b) Air in system.	1 b) Purge air from system.
	1 c) Pinched hydraulic hose.	1 c) Locate and relieve pinch ing. Relocate or replace hoses as required.
	1 d) Control linkage parts worn or missing.	1 d) Check linkage for proper connections and movement. Replace worn or missing parts.
	1 e) Pump not running.	1 e) Check U-joints at PTO and pump for tightness.
	1 f) Control valve not operating.	1 f) Check valve spool for full stroke.
	1 g) Relief valve setting incorrect.	1 g) (See following)

Trouble	Cause	Remedy
⚠ CAUTION When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the "lock" position and the PTO disengaged. REMEDY Check pressure in system observing the caution above when any adjustments are made. Install a 0-3000 psi (20 684 kPa) pressure gage in the 1/8" NPT port in the cylinder inlet manifold. Disconnect the valve pull out cable and slowly extend cylinder to the full dump position. Then, with the control valve in the "RAISE" position and the engine running at about 800 rpm, the pressure gage should indicate approximately 2500 psi (17 237 kPa) pressure. DO NOT run pump against the relief valve for more than a few seconds at a time. If pressure does not build up properly, inspect valve and replace all worn or defective parts, or replace entire valve. If valve is in good condition the pump may be defective (see item 1h). Replace valve pull out cable and 1/8" pipe plug.		
1) Failure to raise load. (Cont)	1h) Defective pump.	1h) If troubles are not cured by above remedies, pump may be defective. Replace.
2) Oil foaming.	2a) Insufficient oil in tank.	2a) With body fully raised oil should flow out of oil level plug in tank. Add oil as required. See page 16 for recommended oil type.

Trouble	Cause	Remedy
	2b) Suction line hose fittings loose, allowing air to enter system.	2b) Tighten hose clamps and fittings; vent air from system.
	2c) Oil too heavy.	2c) Install proper oil for expected temperature.
	2d) Pump operated at high speed in cold weather.	2d) Operate pump at slower speed.
3) Body raises unsteadily, jerks or vibrates.	3a) Air in system.	3a) Check suction hoses and fittings for leaks; retighten loose fittings. Vent cylinder.
4) Body lowers eratically by misstaging of cylinder sleeves.	4a) Cylinder packing too tight..	4a) (See Below)
REMEDY Disconnect valve pull out cable and slowly extend cylinder to full stroke. Observe WARNING (Safety Precautions) rules in Section 4.2. Loosen set screw in each packing gland and unscrew gland one full turn. Place valve in the RAISE position and run pump against relief valve for a few seconds to loosen packing. Hand tighten packing gland and tighten set screw. Lower body and reconnect cable pull out.		
5) Body will not stay up.	5a) Control value not shifting completely, valve spool or housing scored. Cylinder scored and leaking externally.	5a) Adjust linkage for complete stroke replace or repair valve; return cylinder to DuraClass Distibutor if cylinder is scored or replace packing if leaking.

CYLINDER REPAIR

⚠ CAUTION

When any work is to be done on body or hoist and body is fully or partly raised, body must have both props securely set or be blocked securely so it cannot fall. In addition, the HOIST control lever must be in neutral with the lever lockout engaged in the “lock” position and the PTO disengaged.

For any major repair the cylinder should be returned to DuraClass Distributor.

Repair in the field should be limited to the replacement of packing which can be done without removing the cylinder from the truck. Raise body, observing CAUTION above, loosen lock screws in packing gland, unscrew gland and slide out wiper ring, upper guide ring, and packing.

Cut replacement packing rings on a diagonal (slant) and install so cuts are 90° apart on adjacent rings. Dip packing in oil before assembly. Replace guide ring and packing gland. Be sure wiper is held in place by packing gland. Replace nylon, plugs and lock screws in gland and tighten lock screws.

⚠ CAUTION

Packing glands should be snug - but not tight. There should always be a light film of oil on the sleeves during operation. Tight packing will cause scoring of sleeves, and mistaging of the sleeves as an empty body is lowered.

Keep dirt out of system.

PUMP REPAIR

Replacement parts for pump are available, although pump should be returned to your local DuraClass Distributor for any repairs beyond the replacement of seals and O-rings.

CONTROL VALVE REPAIR

Replacement parts for valve are available, although valve should be returned to your local DuraClass Distributor for repairs beyond the replacement of seals and O-rings.

MODEL AND SERIAL NUMBER DATA

For your records fill in data below at the time warranty card is filled in.

Owner _____

Date Unit Put in Operation _____

Address _____

City _____State_____

Body Model _____Body P/N_____

Body Serial No._____Hoist Model _____

Hoist P/N _____Hoist Serial No. _____

Truck Make _____Truck Model _____

Truck Serial No. _____

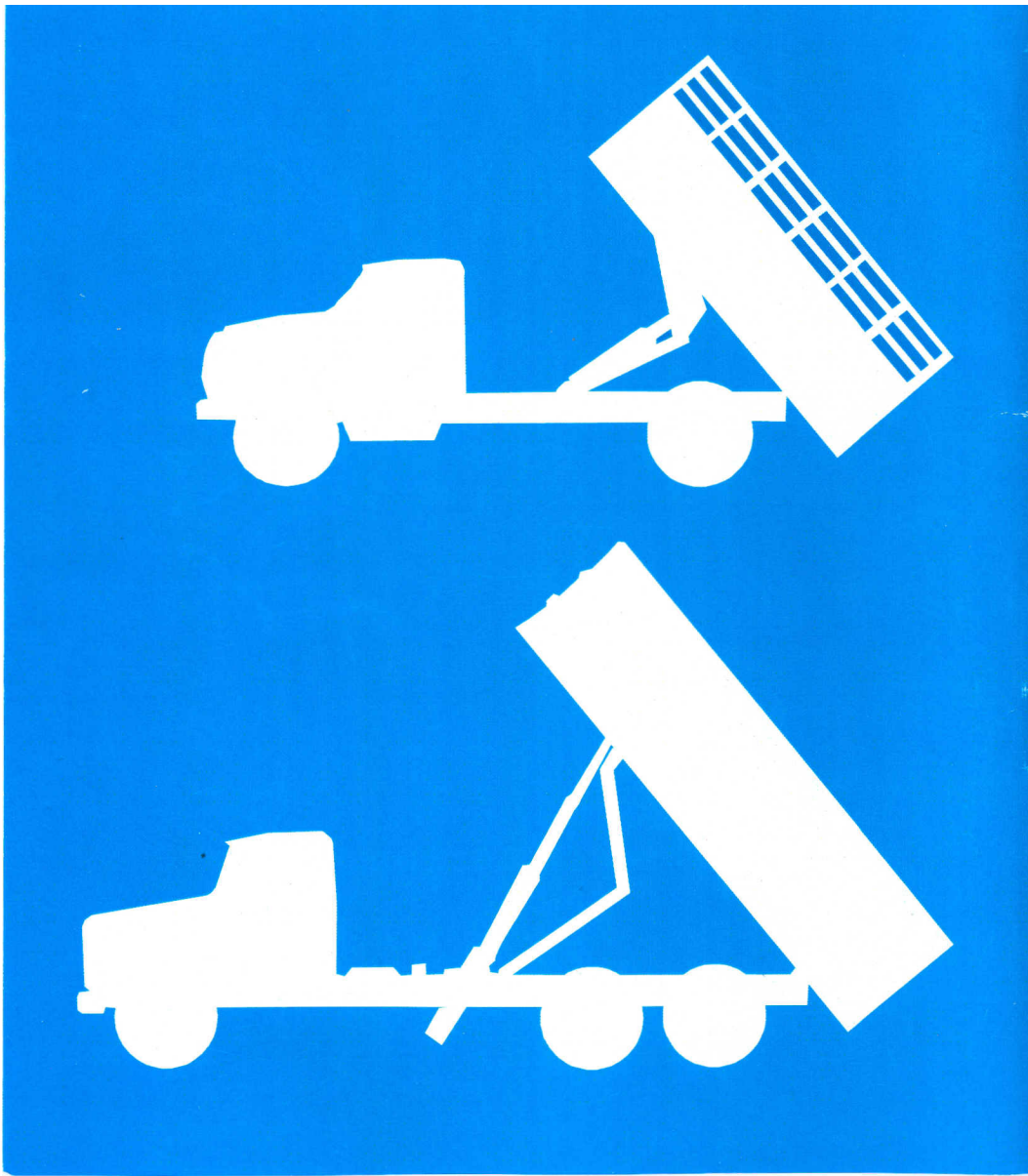
Dealer Purchased From _____

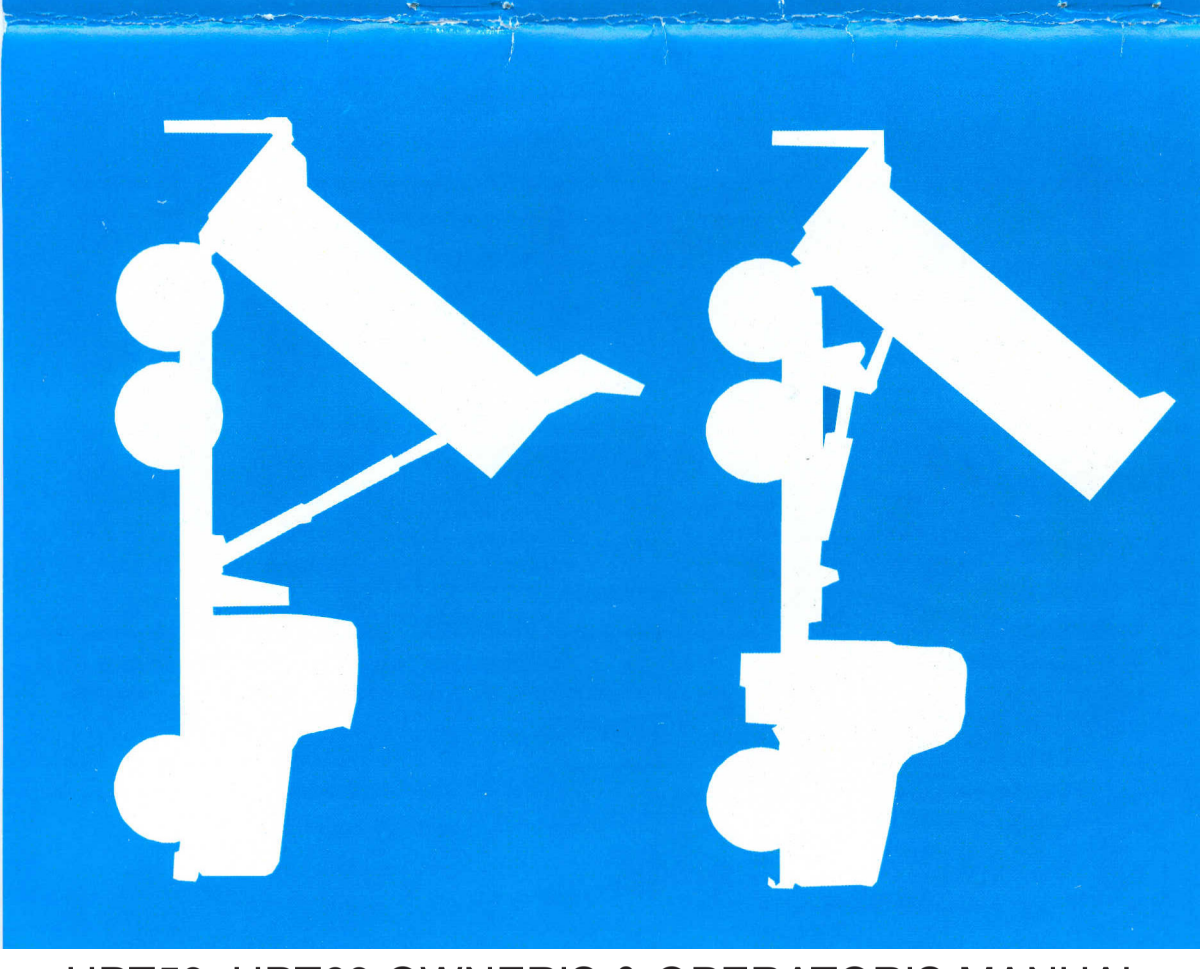
City _____

"DuraClass, as manufacturer of the equipment that is covered by this manual, is providing a product to the user who has acknowledged to have superior knowledge of the conditions of the use to which the product will be put. DuraClass relies upon the user's superior knowledge in specifying any changes or modifications including, but not limited to, the inclusion or non-inclusion of options that are required by the user and DuraClass product, and for the particular application of the user relative to DuraClass product."

DURACLASS

TRUCK EQUIPMENT DIVISION
TISHOMINGO, MS





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HPT53 HPT63 OWNER'S & OPERATOR'S MANUAL