



IMPORTANT SAFETY NOTICE

Proper service and repair are important to the safe, reliable operation of the DURACLASS products. Service procedures recommended by DURACLASS are described in this service manual and are effective for performing service operations. Some of these service operations may require the use of tools or blocking devices specialty designed for the purpose. Special tools should be used when and as recommended. It is important to note that some warnings against the use of specific methods that can damage the product or render it unsafe are stated in the service manual. It is as important to understand these warnings are not exhaustive. DURACLASS could not possibly know, evaluate and advise the service trade of all consequence of each way. Consequently, DURACLASS has not undertaken any such broad evaluations. Accordingly, anyone who uses service procedures or tools which are not recommended by DURACLASS must first satisfy himself thoroughly that neither his safely nor the products safety will be jeopardized by the method he selects.

"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 the DURACLASS product, and for the particular application of the user relative to the DURACLASS product."

WARRANTY

DURACLASS warrants this unit to be free from defects in material and workmanship, under normal use and service, for a period of 1 year, said period to run from the date when first placed into operation.

This warranty is expressedly limited to the replacement or repair at such place as DURACLASS may designate, of such parts of such products as shall be returned to it with transportation charges prepaid (all collect shipments will be refused) and which shall appear to its satisfaction, upon inspection at such place designated by it, to have defective in material or workmanship. In lieu of such repair or replacement. DURACLASS may elect to issue a credit or refund for such products.

This warranty does not apply to any unit of DURACLASS equipment which shall have been repaired or altered outside of the DURACLASS so as to affect its stability or which has been subject to misuse, negligence or accident or which shall have been installed or operated other than in accordance with the printed instructions of DURACLASS.

This warranty does not obligate DURACLASS to bear the cost of labor in replacing defective parts. No other obligation is assumed or authorized to be assumed with respect to products of DURA-CLASS other than herein set forth.

DURACLASS DOES NOT ASSUME ANY LIABILITY FOR SECONDARY CHARGES, EX-PENSES FOR ERECTING OR DISCONNECTING, OR ANY OTHER CONSEQUENTIAL LOSS-ES OR DAMAGES.

"WE MAKE NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKE NO WARRANTY OF MERCHANTABILITY OF FITNESS FOR ANY PARTICULAR PURPOSE."

"NO EMPLOYEE CAN CHANGE THIS WARRANTY, UNLESS APPROVED IN WRITING BY THE GENERAL SALES MANAGER OR THE PRODUCT MANAGER."

DURACLASS

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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 OPERA-TOR'S MANUAL BEFORE ATTEMPTING TO SET UP, OP-ERATE, ADJUST OR SERVICE THE EQUIPMENT.

The information and specifications included in this publication were in effect at the time of approval for printing. DuraClass, Tishomingo, MS. reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatsoever.

SECTION I INTRODUCTION

INTRODUCTION

This instruction manual has operation and maintenance information for DuraClass Model 1715, 1721, 1821 and 1824 HD single-acting and 1715 DA, 1721 DA, 1821 DA and 1824 DA-HD double-acting, twin-arm 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 arm type 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, <u>make sure they read this manual and are instructed with all the safety procedures related to this equipment.</u>

HOIST DESCRIPTION

DuraClass Model 1715, 1721, 1821 and 1824 HD hoists are <u>single-acting</u>, single cylinder, twin-arm type hydraulic hoists (see Figure 1) whereas the Model 1715 DA, 1721 DA, 1821 DA and 1824 DA-HD hoists are <u>double-acting</u>, single cylinder, twin-arm type hydraulic hoists (see Figure 2). These hoists are designed for use with DuraClass steel dump bodies on single or tandem axled chassis. Dumping angle is 50 ° for all hoist models.



Figure 1. Typical Single-Acting, Twin-Arm Hoist



Figure 2. Typical Double-Acting, Twin-Arm Hoist

SECTION II OPERATING PROCEDURES

SAFETY PRECAUTIONS

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

HOIST CAPACITY

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

HOIST MODEL	BODY LENGTH		MOUNTING HEIGHT		CAPACITY BODY & PAYLOAD	
					te	ons
	ft.	m.	in.	mm	U.S.	Metric
1715	8	2.438	13-3/8	340	12.0	109
	9	2.743	14-3/8	365	10.5	9.5
	10	3.048	14-3/8	365	9.0	8.2
1721	9	2.743	14-3/8	365	13.5	12.2
	10	3.048	14-3/8	365	12.0	10.9
1821	9	2.743	15-3/8	391	17.0	15.4
	10	3.048	15-3/8	391	15.0	13.6
	11	3.353	15-3/8	391	13.0	11.8
	12	3.658	15-3/8	391	12.0	10.9
1824 HD	10	3.048	16-3/8	416	21.0	19.0
	11	3.353	16-3/8	416	19.0	17.2
	12	3658	16-3/8	416	17.0	15A
	13	3.962	16-3/8	416	15.0	13.6
	14	4267	16-3/8	416	14.0	12.7

HOIST LIFTING CAPACITY*

HOIST MODEL	BODY LENGTH		MOUNTING HEIGHT		CAPACITY BODY & PAYLOAD	
					toi	ns
	ft.	m.	in.	mm	U.S.	Metric
1715 DA	8	2.438	13-3/8	340	12.0	10.9
	9	2.743	14-3/8	365	10.5	9.5
	10	3.048	14-3/8	365	9.0	8.2
1721 DA	9	2.743	14-3/8	365	13.5	12.2
	10	3.048	14-3/8	365	12.0	10.9
1821 DA	9	2.743	15-3/8	390	17.0	15.4
	10	3.048	15-3/8	390	15.0	13.6
	11	3.353	15-3/8	390	13.0	11.8
1824 DA-	10	3.048	16-3/8	416	21.0	19.0
HD	11	3.353	16-3/8	416	19.0	17.2
	12	3.658	16-3/8	416	17.0	15.4
	13	3.962	16-3/8	416	15.0	13.6
	14	4.267	16-3/8	416	14.0	12.7

*Above capacities based on mounting body with 12 in. (305 mm) overhang from hinge to end of body. Also assumes level loading, with center of gravity at midpoint of body.

CAUTION DECAL INDEX

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

All decals must be kept clean and complete. Replace any decals which are unreadable. Decals may be procured from your authorized DuraClass Distributor.



Figure 3. Caution and Warning Decal Location



WARNING

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

2

THIS VEHICLE EQUIPPED WITH HOIST OPERATING LEVER LOCKOUT. HOIST CONTROL LEVER <u>MUST</u> BE ENGAGED IN NEUTRAL POSITION WITH LEVER LOCK. OUT ENGAGED IN <u>LOCK</u> POSITION WHENEVER HOIST IS NOT BEING OP-ERATED.

3

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.
- 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.



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.



BOTH BODY PROPS MUST ALWAYS BE USED.

STORAGE 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 IN-OPERATIVE 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 PRO-CEEDING. RETAIN THIS BULLETIN WITH OWNERS, OPERATOR'S AND MAINTENANCE MANUAL IN THE CHASSIS CAB FOR FUTURE REFERENCE.

- 1. Make sure all persons are cleared at least 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.
- Either allow the load to finish dumping, or if part of load is stuck in body, use a backhoe orfront end loaderto remove balance of load. <u>NOTE!</u> Use extreme caution 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, <u>from a position on the ground, under the chassis frame</u>, 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 EX-PERIENCED HELP AND PROPER EQUIPMENT BE-FORE PROCEEDING. IF YOU SHOULD HAVE ANY QUESTIONS CONCERNING ANYTHING CONTAINED IN THESE INSTRUCTIONS, PLEASE CONTACT DURACLASS FIELD SERVICE DEPT. (414) 647-3289.

OPERATING INSTRUCTIONS

POWER TAKE-OFF OPERATION WITH MANUAL TRANSMISSION

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



Figure 6. Standard Hoist Controls

To Engage Power Take-Off (PTO)

- 1. Place transmission shift lever in NEUTRAL.
- 2. Set hand 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.

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 highway.



Figure 7. Optional Flat Controls

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 operate.

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.

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HOIST OPERATION

CAUTION

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



Figure 8. Optional Cable Control

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 reengage lever lock.

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

TRAVELING INSTRUCTIONS

Observe the following cautions when traveling with your truck.

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.

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

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

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

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. (14 x 14 x 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 Meathods

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 hoist lever lockout engaged in the "lock" position and the PTO disengaged.

- 1. The hoist should be lubricated at least once a week. See figure 12. Use the same grease as recommended for the chassis. Use oil on control rod ends, cable, cable levers and link ends.
- Check hydraulic oil level for proper level as follows: <u>Double-Acting Hoist</u> — Extend cylinder to full stroke, block body securely and check oil level in tank by removing oil level plug. Oil should be level with plug opening. Add oil if necessary.

<u>Single-Acting Hoist</u> — Extend cylinder to full stroke, block body securely and check oil level in cylinder by removing vent fitting from top of cylinder. Oil should be level with vent fitting opening. Add oil if necessary.



Figure 12. Lubrication Points

MONTHLY MAINTENANCE CHECKS

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 hoist lever lockout engaged in the "lock" position and the PTO disengaged

- 1 Check bolt tightness at tie downs, PTO, pump brackets, pump,cab controls, and, on double acting models, control valve and hydraulic tank. 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. Inspect drive line for possible wear and check set screws for tightness and lock wire in position.
- 3. Check and replace cotter pins in shaft ends if necessary.
- 4. Check color of oil for possible contamination. If oil appears thickor dirty, drain system and replace. See "Hydraulic Oil Change" for proper type oil.
- 5. Check for oil leaks in all hydraulic fittings and hoses. Retighten fittings or replace hoses as necessary.
- 6. When equipped with oil filter, element must be changed after firstmonth 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 hoist lever lockout engaged in the "lock" position and the PTO disengaged.

1. We recommend that the oil in the system be changed at least twiyear. (See weekly maintenance schedule for oil level.)

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 air craft hydraulic fluid.

2. Oil filter to be changed routinely at each half year interval (ap-proximately 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 generation 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.



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

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 hoist lever lockout engaged in the "lock" position and the PTO disengaged.			
1) Failure to raise load.	la) Insufficient oil: double-acting hoists - single-acting hoists -	 la) Add oil as required: tank - with cylinder fully extended, oil should flow out of oil level plug hole. cylinder - with cyl- inder fully extended, oil should flow out of oil fill hole at top of cylinder. See Page 20 for recommended oil 	
	1b) Air in system.1c) Pinched hydraulic hose.	type. lb) Purge air from system. lc) Locate and relieve pinching. Relocate or replace hoses as	
	1d) Control linkage parts worn or missing.	required. 1d) Check linkage for proper connections and movement. Replace worn or mis- sin parts.	
	le) Pump not running.	le) Check U-Joints at PTO and pump for tightness.	
	lf) Control valve not operating.	lf) Check valve spool for full stroke.	
	1g) Ball check and sprint in top and bot tom cylinder manifolds missing which could cause oil to by-pass within the cylinder.	1g) Missing, replace.	

TROUBLE CHART(Cont)

Trouble	Cause	Remedy	
1) Failure to raise load. (Cont)	 h) Relief valve setting incorrect on double- acting hoist only. Pump will not pro- 	1h) See following.1i) See following.	
	duce pressure.	j)	
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 hoist lever lockout engaged in the "lock" posi- tion and the PTO disengaged.			
REMEDY Observe CAUTION above and check pressure in system.			
1715 DA, 1721 DA, 1821 DA and 1824 DA-HD The double-acting hoists have a relief valve in the system. Discon- nect hose from base end of cylinder and plug cylinder port. Con- nect hose to a 0-3000 psi (0-20 684 kPa) pressure gage. Run pump at about 300 rpm. Place hoist control lever into RAISE position and allow pressure to build up against the relief valve (only for a few seconds). If pressure does not build up properly, adjust relief valve. To adjust the relief valve, which is installed in the hoist con- trol valve, remove acorn nut, and loosen jam nut. Use screwdriver to turn adjustment screw clockwise to increase pressure, counter- clockwise to decrease pressure. After adjusting to proper pressure, tighten jam nut and replace acorn nut. If pressure still does not build up properly, pump may be defective. Replace pump.			
1715, 1721, 1821 and 1824 HD The single-acting hoists <u>do not</u> have a relief valve. Disconnect hose from base end of cylinder and plug cylinder port. Connect hose to a 0-3000 psi (0-20 684 kPa) pressure gage. Run pump at about 300 rpm. Gradually feather control valve into raise position until pres- sure gage reads the minimum pressure required for the specific hoist being tested. If pressure does not build up properly, the pump may be defective. Replace pump.			

TROUBLE CHART(Cont)

Trouble	Cause	Remedy
Minimum required pressu	sures are as follows:	
MODEI	D	DESSUDE
MODEL	<u> </u>	k <u>essoke</u> si kPa
	P	
1715, 1721, 1821	100	0 6 895
1824 HD	150	00 10 343
1/15 DA, 1/21 DA, 1821 1824 DA_HD	DA 130	0 10 3/3
1024 DA-11D	150	10 545
2) Oil foaming	2a) Insufficient oil in:	2a) Add oil as required:
	tank-double-	tank—with cylinder
	acting hoists.	fully extended, oil
	cylinder—single-	should flow out of
	acting hoists.	oil level plug hole.
		cylinder—with
		tended oil should
		flow out of oil
		fill hole at top of
		cylinder.
	2b) Suction line hose	2b) Tighten hose clamps
	fittings loose, al-	and fittings; vent
	lowing air to enter	air from system.
	system.	
	2c) Oil too heavy	2c) Install proper oil for
	20) on 100 maxy	expected tempera-
		ture.
	2d) Pump operated at	2d) Operate nump at
	high speed in cold	slower speed.
	weather.	
3) Body raises unsteadi-	3a) Air in system.	3a) Check suction hoses
ly, jerks or vibrates.		and fittings for
		leaks; retighten
		loose fittings. Vent
		cylinder.

Trouble	Cause	Remedy
 Body wil not stay up. 	4a) Loose hydraulic connections.	4a) Check and tighten, or replace.
	4b) Cylinder or pis- ton rings scored, causing internal leakage.	4b) Replace piston rings. If cylinder barrel is scored return cylinder to DuraClass distributor for repair or replacement.
	4c) Control valve not shifting com- pletely.	4c) Adjust linkage for com- plete shifting.
	4d) Valve spool or housing scored.	4d) Replace or repair valve section of pump.
	4e) Check valve not seating properly.	4e) Reseat check valve. (Ref. Service Bulletin No. B72205-1072)

TROUBLE CHART(Cont)

CYLINDER REPAIR

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 hoist lever lockout engaged in the "lock" position and the PTO disengaged.

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

Repairs 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, unscrew packing nut and remove 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. Install packing nut.

Packing nut should be snug — but not tight. There should always be a light film of oil on the rod during operation. Tight packing will cause scoring of rod.

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			

"DURCLASS 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. DURCLASS 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 the DURCLASS product, and for the particular application of the user relative to the DURCLASS product."



DURACLASS

TRUCK EQUIPMENT DIVISION TISHOMINGO, MS

