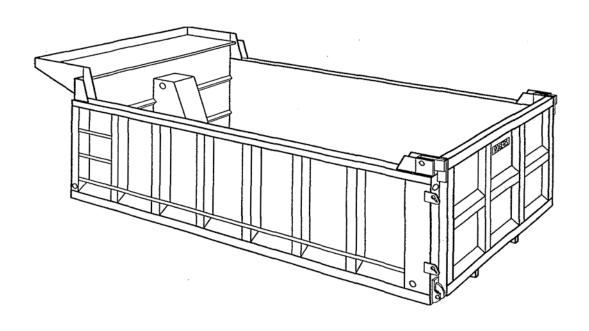
ROGERS MANUFACTURING COMPANY, INC.

OPERATION & MAINTENANCE



110 TRANSIT AVENUE NASHVILLE, TENNESSEE 37210

ROGERS

DUMP BODY OPERATION & MAINTENANCE

MANUAL

THANK YOU FOR BUYING A ROGERS DUMP BODY. YOUR ROGERS DUMP BODY WAS ENGINEERED AND BUILT TO GIVE YOU LONG, TROUBLE-FREE SERVICE. THIS MANUAL HAS BEEN PREPARED TO ASSIST YOU IN PROPERLY OPERATING AND MAINTAINING THE BODY, AND TO AID YOU IN SPOTTING AND CORRECTING MINOR TROUBLE. PLEASE READ THIS MANUAL AND KEEP IT HANDY TO USE AS A READY REFERENCE.

WHENEVER ORDERING PARTS OR REQUESTING INFORMATION, ALWAYS REFER TO THE DUMP BODY MODEL AND SERIAL NUMBER SHOWN ON THE SERIAL NUMBER PLATE WHICH IS LOCATED AT THE REAR OF THE BODY BETWEEN THE STOP LIGHTS. REFER TO THE PARTS LIST IN THIS MANUAL FOR THE PROPER PART NUMBER WHEN ORDERING REPLACEMENT PARTS. ROGERS MANUFACTURING COMPANY MAINTAINS A COMPLETE PARTS DEPARTMENT AT ITS FACTORY IN NASHVILLE, TENNESSEE.

BODY MODEL NO
BODY SERIAL NO
CYLINDER MODEL NO
PUMP MODEL NO
P.T.O. MODEL NO
ADAPTER GEAR MODEL NO
ROGERS RAPID TARP SERIAL NO.

ROGERS MANUFACTURING COMPANY, INC.

Telephone (615) 244-9720

ROGERS

MANUFACTURING

COMPANY

INC.

THINGS TO KNOW ABOUT YOUR OWNERS MANUAL

THIS OWNERS MANUAL HAS INFORMATION ABOUT YOUR NEW ROGERS DUMP BODY. SOME OF THE INFORMATION CONTAINED HEREIN WILL NOT APPLY TO YOUR PARTICULAR UNIT. FOR EXAMPLE, THIS MANUAL EXPLAINS DIFFERENT BODY MODELS, PUMPS, AND CYLINDERS USING DIAGRAMS AND PARTS LISTS. IT ALSO CONTAINS AN EXPLANATION OF THE DIFFERENT COMPONENTS AND OFFERS A TROUBLE-SHOOTING GUIDE TO HELP IN THE DAILY OPERATION OF YOUR NEW UNIT.

AS YOU READ THROUGH THIS MANUAL, YOU WILL FREQUENTLY FIND WARNINGS. CAREFULLY READ ALL WARNINGS, BECAUSE THEY TELL YOU HOW TO AVOID ENDANGERING YOURSELF AND OTHER PEOPLE.

THIS MANUAL SHOULD REMAIN WITH VEHICLE AT ALL TIMES.

ROGERS MANUFACTURING CO., INC. NASHVILLE, TENNESSEE

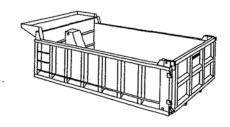
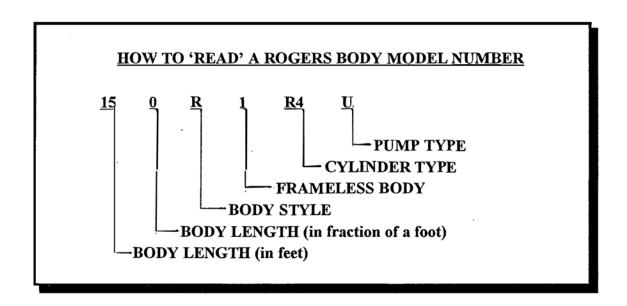


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WARRANTY

ROGERS MANUFACTURING COMPANY, INC. WARRANTS THE PRODUCTS IT MANUFACTURES TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP WHEN UNDER NORMAL USE AND SERVICE FOR A PERIOD OF TWELVE (12) MONTHS, EXCLUSIVE OF BRAKE LININGS, PACKINGS AND SEALS IN THE TELESCOPIC CYLINDER, HYDRAULIC PUMP AND CONTROL VALVE, WHICH SHALL BE WARRANTED FOR A PERIOD OF NINETY (90) DAYS.

THE RESPONSIBILITY OF ROGERS MANUFACTURING COMPANY UNDER THIS WARRANTY IS LIMITED TO MAKING GOOD, BY REPAIR OR REPLACEMENT AT THE COMPANY FACTORY, ANY PART OR PARTS IT MANUFACTURES WHICH SHALL BE RETURNED, FREIGHT PRE-PAID, WITHIN THE TIME LIMITS DESCRIBED ABOVE AND UPON EXAMINATION SHALL BE FOUND TO BE DEFECTIVE TO THE SATISFACTION OF THE COMPANY.

NO PARTS OR EQUIPMENT WILL BE RECEIVED OR CONSIDERED FOR REPAIR OR REPLACEMENT WITHOUT SPECIFIC WRITTEN AUTHORITY FROM ROGERS MANUFACTURING COMPANY.

ON ALL COMPONENT PARTS NOT MANUFACTURED BY ROGERS, THE WARRANTY IS TO THE EXTENT THAT THE MANUFACTURERS OF SUCH PARTS WARRANT THEM TO ROGERS MANUFACTURING COMPANY.

ANY PARTS DAMAGED BY OVERLOADING, ABUSE, FIRE, ACCIDENT OF ANY TYPE OR CAUSE ARE EXEMPT FROM THIS WARRANTY, AS IS THE LOSS OF PRODUCT, TIME OR ANY OTHER CONSEQUENTIAL DAMAGES.

THIS WARRANTY DOES NOT EXTEND TO TIRES SINCE THEY ARE UNDER THE WARRANTY OF THE TIRE MANUFACTURER AND SHOULD BE RETURNED TO YOUR LOCAL DISTRIBUTER FOR ADJUSTMENT.

ROGERS MANUFACTURING CO., INC.

110 Transit Avenue Nashville, Tennessee 37210 Post Office Box 100187 Nashville, Tennessee 37224 Telephone 615/244-9720 FAX Number 615/244-9719

January 1, 2006

Subject:

Warranty Policy & Procedure

In Filing A Claim

Rogers warranties its product as follows:

a) One year on defects in workmanship when under normal use.

b) Cylinder Packing, Hydraulic Pump Packing: PTO seals warranted for a 90 day period.

- c) In the case of component parts, it is Rogers Manufacturing Company policy to pass on to the user whatever warranty that is offered by the original manufacturer of the particular part in question. All defective parts must be returned to insure proper credit unless otherwise specified.
- d) Rogers shall not be liable for loss of time, loss of profit direct or indirect because of defective product.
- e) Advise Rogers Manufacturing sales/customer service department immediately upon discovery of any problem relating to defective parts, workmanship or material. Our phone # is 1-877-407-6437. A file will be created and a claim number will be assigned to you. Please record and retain this number for future reference.
- f) Rogers will require as much detail as possible relating to the problem.
- g) Please provide the following:

Your Name

End Users Name

Your Telephone Number, Fax Number and E-Mail Address

Vehicle Identification Number (Serial #)

Dump Body Serial Number (located at rear of body on hinge assembly)

- h) When needed, send digital photos via e-mail to: seblackmon@rogersmfg.net or rl.barrett@rogersmfg.net
- i) Rogers will provide all claimants a timely response by telephone, fax, or e-mail.
- Ronnie Barrett, Donnie Barrett, or Steve Blackmon are authorized to handle warranty claims. Toll-Free 1-877-407-6437.

4A



SECTION I

COMPONENTS AND THEIR FUNCTION

POWER TAKE-OFF (PTO)

THE POWER TAKE-OFF IS MOUNTED TO THE TRANSMISSION AND DRIVES THE HYDRAULIC PUMP. THE ENGINE SHOULD BE RUN AT 1000 TO 1500 RPM WHEN THE PTO IS ENGAGED.

PUMP DRIVE LINE

THE POWER TAKE-OFF SUPPLIES POWER TO THE PUMP THROUGH A DRIVE LINE AND TWO UNIVERSAL JOINTS. SOME LONGER INSTALLATIONS MAY REQUIRE A TWO-PIECE DRIVE LINE WITH A HANGER BEARING AND AN ADDITIONAL UNIVERSAL JOINT.

PUMP/PTO COMBINATION

WITH THE PUMP/PTO COMBINATION CONFIGURATION, THE PUMP IS MOUNTED DIRECTLY TO THE POWER TAKE-OFF ELIMINATING THE NEED FOR DRIVE LINES AND UNIVERSAL JOINTS.

PUMP AND VALVE UNIT

THE GEAR TYPE PUMP AND THREE (3) POSITION (RAISE - HOLD - LOWER) CONTROL VALVE ARE MOUNTED TOGETHER AND INCLUDE A PRESET RELIEF VALVE TO LIMIT PUMP PRESSURE TO APPROXIMATELY 2000 PSI. THE VALVE SPOOL CONTROLS OIL FLOW AS IT IS SHIFTED FROM ONE POSITION TO ANOTHER.

OIL RESERVOIR

THE OIL RESERVOIR IS OF SUFFICIENT VOLUME TO MAINTAIN AN AMPLE RESERVE OF HYDRAULIC FLUID UNDER ANY OPERATING CONDITIONS. THE TANK IS BAFFLED TO REDUCE EXCESSIVE OIL TURBULENCE AND EQUIPPED WITH A FILLER/BREATHER CAP TO ALLOW FREE FLOW OF AIR DURING THE MOVEMENT OF OIL IN AND OUT OF THE TANK.

HYDRAULIC OIL

CAUTION NOTE; NEVER USE DETERGENT (HD) OIL IN THE HYDRAULIC SYSTEM AS IT WILL DETERIORATE THE CYLINDER PACKINGS. ONLY CLEAN, NEW HYDRAULIC FLUID SHOULD BE USED. ROGERS SUPPLIES TEXACO RANDO HD32 HYDRAULIC FLUID WHICH IS A NON-DETERGENT, HIGH WEAR RESISTANT OIL. FOR AN EQUIVALENT HYDRAULIC FLUIDS LIST, CONTACT ROGERS. DIRTY OIL WILL REDUCE THE LIFE OF THE PUMP AND CYLINDER. IF OIL FROM A DIPSTICK LEAVES A RESIDUE WHEN BLOTTED ON A CLEAN PIECE OF CLOTH OR PAPER, IT SHOULD BE REPLACED. (SEE SECTION III, OIL RESERVOIRS).

CYLINDER

THE MULTISTAGE, SINGLE ACTING CYLINDER IS SIZED FOR YOUR PARTICULAR CAPACITY BODY. THE CYLINDER SHOULD EXTEND BEGINNING WITH THE LARGEST SLEEVE FIRST AND ENDING WITH THE SMALLEST DIAMETER SLEEVE. RETRACTION SHOULD BE THE REVERSE OF THE EXTENSION. A LIGHT FILM OF OIL ON EACH SLEEVE OF THE CYLINDER INDICATES GOOD CYLINDER OPERATION.

PULL-OUT CABLE

THE FUNCTION OF THE PULL-OUT CABLE IS TO SHIFT THE CONTROL VALVE TO THE 'HOLD' POSITION JUST BEFORE THE BODY REACHES ITS MAXIMUM RAISED POSITION. THIS PREVENTS OVERLOADING THE PUMP AND 'BANGING' OF THE CYLINDER AT THE END OF ITS STROKE.

SECTION II

OPERATION

A. ENGAGEMENT OF POWER TAKE-OFF (PTO)

I. MANUAL TRANSMISSIONS

- A. SET HAND BRAKE AND DEPRESS CLUTCH PEDAL
- B. SHIFT TRANSMISSION INTO NEUTRAL
- c. SHIFT POWER TAKE-OFF INTO GEAR
- D. RELEASE CLUTCH PEDAL EQUIPMENT IS NOW READY TO OPERATE

2. AUTOMATIC TRANSMISSIONS

- A. SET HAND BRAKE
- B. PLACE TRANSMISSION INTO ANY GEAR POSITION
- c. ENGAGE POWER TAKE-OFF
 - NOTE: IF GEARS DO NOT MESH, IT MAY BE NECESSARY TO LET THE TRUCK 'CREEP' AHEAD SLIGHTLY WHILE MAINTAINING A SLIGHT PULL ON THE PTO CONTROL LEVER.
- D. AFTER PTO IS ENGAGED, SHIFT THE TRANSMISSION INTO NEUTRAL
- E. EQUIPMENT IS NOW READY TO OPERATE

B. TO DUMP THE LOAD

- I. SINCE THE CENTER OF GRAVITY OF THE LOADED VEHICLE RAISES AS THE BODY RAISES, PARTICULAR ATTENTION MUST BE GIVEN TO ENSURE THAT THE TRUCK HAS ALL WHEELS ON LEVEL GROUND BEFORE ATTEMPTING TO DUMP THE LOAD.
- 2. ALWAYS UNLATCH THE TAILGATE BEFORE RAISING THE BODY.
- 3. RELEASE THE TAILGATE BY PULLING THE LATCH LEVER ON THE DRIVERS SIDE OF THE BODY, OR IF THE BODY IS EQUIPPED WITH AN AIR LATCH, RELEASE THE TAILGATE BY MOVING THE AIR LATCH CONTROL LEVER TO THE 'OPEN' POSITION.
- 4. MOVE THE BODY VALVE CONTROL LEVER TO THE 'RAISE' POSMON.

C. TO LOWER THE BODY

I. MOVE THE VALVE CONTROL LEVER TO THE 'LOWER' POSMON. <u>NEVER LOWER A LOADED BODY EXCEPT IN EMERGENCY CONDMONS.</u> IF A LOADED BODY MUST BE LOWERED, IT MUST BE LOWERED VERY SHORT DISTANCES AT A TIME, BECAUSE EXTENSIVE CYLINDER DAMAGE (BULGING) MAY RESULT.

SECTION II - OPERATION (CONTINUED)

- 2. AFTER BODY IS RESTING ON THE FRAME, SHIFT THE VALVE CONTROL LEVER TO THE 'HOLD' POSITION AND RELATCH THE TAILGATE.
- 3. **WARNING:** PERFORM THE FOLLOWING BEFORE OPERATING THE TRUCK AT ROAD SPEEDS:
 - A. DISENGAGE THE POWER TAKE-OFF.
 - B. LATCH THE TAILGATE.
 - C. PLACE THE PUMP CONTROL IN THE 'HOLD' POSITION.

D. DISENGAGING THE POWER TAKE-OFF (PTO)

I. MANUAL TRANSMISSIONS

- A. DEPRESS CLUTCH PEDAL
- B. SHIFT PTO OUT OF GEAR
- c. RELEASE CLUTCH PEDAL
- D. <u>WARNING</u>: DISENGAGE PTO WHEN HOIST IS NOT IN USE OR WHEN TRAVELING AT HIGHWAY SPEEDS. DO NOT MOVE TRUCK (LOADED OR UNLOADED) UNLESS THE BODY IS LOWERED AND RESTING ON THE TRUCK FRAME.

2. AUTOMATIC TRANSMISSIONS

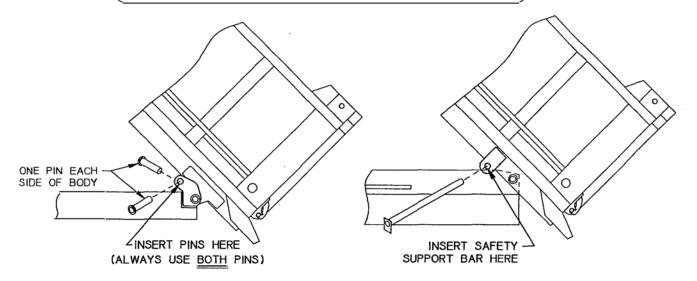
- A. SHIFT TRANSMISSION INTO ANY GEAR POSITION AND SHIFT PTO OUT OF GEAR
- B. <u>WARNING</u>: DISENGAGE PTO WHEN HOIST IS NOT IN USE OR WHEN TRAVELING AT HIGHWAY SPEEDS. DO NOT MOVE TRUCK (LOADED OR UNLOADED) UNLESS THE BODY IS LOWERED AND RESTING ON THE TRUCK FRAME.

SECTION III - MAINTENANCE

MAINTENANCE SAFETY SUPPORT



ALWAYS BLOCK UP BODY WITH SAFETY SUPPORTS BEFORE WORKING UNDER A RAISED BODY. USE ONLY PINS SUPPLIED WITH BODY AND EMPTY ALL MATERIAL FROM BODY BEFORE SUPPORTING.



FRAMELESS TYPE BODIES

BODIES WITH SUBFRAMES

THE SAFETY SUPPORT BARS ARE DESIGNED AND INTENDED TO SUPPORT AN EMPTY BODY WHILE MAINTENANCE IS BEING PERFORMED.

INSTRUCTIONS

CAUTION I ALWAYS STAND CLEAR WHILE BODY IS RAISING OR LOWERING.

- RAISE THE BODY HIGH ENOUGH TO ALLOW INSERTION OF THE SAFETY PINS. SHUT OFF ALL POWER.
- 2. REMOVE SAFETY PINS OR BAR FROM STORAGE TUBES AND INSERT FULLY AS SHOWN ABOVE. ON FRAMELESS BODIES, ALWAYS USE \underline{BOTH} PINS SUPPLIED.
- 3. SLOWLY LOWER THE BODY UNTIL IT LIGHTLY ENGAGES THE SUPPORT PINS OR BAR. DO NOT POWER HOIST DOWN!!!
- 4. RETURN THE BODY VALVE TO THE NEUTRAL POSITION.
- 5. TO REPLACE SAFETY PINS TO STORAGE POSITION, RAISE BODY SLIGHTLY, REMOVE PINS AND INSERT INTO STORAGE TUBES WITH RETAINER PINS IN PLACE.

SECTION III

MAINTENANCE

WARNING:

WHEN ANY WORK IS TO BE DONE ON THE BODY OR FRAME WITH THE BODY PARTIALLY OR FULLY RAISED, USE THE SAFETY SUPPORT BAR OR PINS FURNISHED WITH YOUR BODY AND DISENGAGE THE PUMP. BODY MUST BE UNLOADED FOR SAFTEY SUPPORT USE.

SUGGESTED PREVENTATIVE MAINTENANCE PROGRAM PERFORM THESE CHECKS MONTHLY

- A. CHECK BOLT TIGHTNESS OF ALL VALVES, PUMP ASSEMBLY, TANK, CAB CONTROLS AND HINGE PINS. CHECK BOLTS AND NUTS ON THE SUBFRAME ALSO.
- B. CHECK OIL LEVEL IN THE TANK FOR CORRECT HEIGHT. (SEE SECTION III, OIL, RESERVOIR, BELOW).
- C. CHECK OIL FOR POSSIBLE CONTAMINATION. (SEE SECTION I, HYDRAULIC OIL).
- D. INSPECT FOR POSSIBLE OIL LEAKS IN THE HYDRAULIC LINES AND FITTINGS. TIGHTEN FITTINGS OR REPLACE HOSES AS NECESSARY.

LUBRICATION

THE HOIST AND BODY HINGES SHOULD BE LUBRICATED WEEKLY WITH ANY GOOD GRADE MULTIPURPOSE CHASSIS LUBRICANT.

- A. BODY HINGES (2 FITTINGS)
- B. UPPER AND LOWER HOIST CYLINDER PINS (2 FITTINGS)

OIL RESERVOIR

EVERY SIX MONTHS, OR MORE OFTEN UNDER EXTREME CONDITIONS, THE HYDRAULIC OIL SHOULD BE CHANGED IN THE FOLLOWING MANNER:

- A. RAISE THE BODY UNTIL THE CYLINDER IS FULLY EXTENDED AND INSERT SAFETY SUPPORT BAR OR PINS.
- B. PLACE THE BODY CONTOL IN THE 'DOWN' POSITION.
- C. DISCONNECT SUCTION AND RETURN LINES AT TANK AS WELL AS BOTH LINES AT PUMP AND DRAIN ALL OIL.
- D. CYCLE VALVE SPOOL ALTERNATELY FROM RAISE TO LOWER TO CLEAR ALL OIL FROM BOTH SIDES OF THE HOIST CYLINDER (DOUBLE ACTING).
- E. DRAIN THE TANK AND FLUSH LIBERALLY WITH KEROSENE OR OTHER PETROLEUM SOLVENT. ALSO WASH THE FILLER CAP.
- F. REASSEMBLE THE SYSTEM AND FILL THE RESERVOIR TANK WITH OIL.
- G. PLACE PUMP IN GEAR AND RAISE BODY FULLY TO REMOVE PROP.
- H. CYCLE BODY UP AND DOWN TO FILL CYLINDER COMPLETELY.
- LOWER THE BODY AND DISENGAGE PUMP.
- J. WITH THE CYLINDER RETRACTED, ADD OIL AS NEEDED TO THE RESERVOIR ACCORDING TO SIGHT GAGE.

SECTION IV ADJUSTMENTS AND REPAIRS

A. BLEEDING THE HOIST CYLINDER

CAUTION: AIR IN THE TELESCOPIC CYLINDER WILL CAUSE THE BODY TO HESITATE BEFORE RAISING.

- 1. RÉMOVE CYLINDER INSPECTION PLATE FROM HOIST WELL.
- 2. RAISE THE BODY SLOWLY UNTIL THE CYLINDER IS FULLY EXTENDED.
- LOWER THE BODY UNTIL THE FRONT OF THE BODY IS APPROXIMATELY 24 INCHES ABOVE THE FRAME.
- 4. HAVE ANOTHER PERSON CAREFULLY ENTER THE BODY AND SLOWLY OPEN THE BLEEDER SCREW LOCATED AT THE TOP OF THE CYLINDER UNTIL ALL AIR IS VENTED AND THEN CLOSE THE BLEEDER SCREW.
 - NOTE: IF AN EVEN FLOW OF OIL DOES NOT COME FROM THE BLEEDER SCREW, IT IS NECESSARY TO REPEAT THE ABOVE PROCEDURES (2 THRU 4) UNTIL ALL AIR IS VENTED AND OIL FLOWS EVENLY FROM THE BLEEDER SCREW.
- 5. LOWER THE BODY AND REPLACE THE INSPECTION PLATE.
- 6. EXTEND THE CYLINDER TO FULL STROKE. <u>BLOCK THE BODY WITH THE SAFETY SUPPORT BAR OR PINS SO IT CANNOT FALL</u> AND CHECK THE RESERVOIR LEVEL. ADD OIL IF NECESSARY TO OBTAIN 2 OR 3 INCHES OF OIL IN THE TANK. <u>DO NOT OVERFILL.</u>

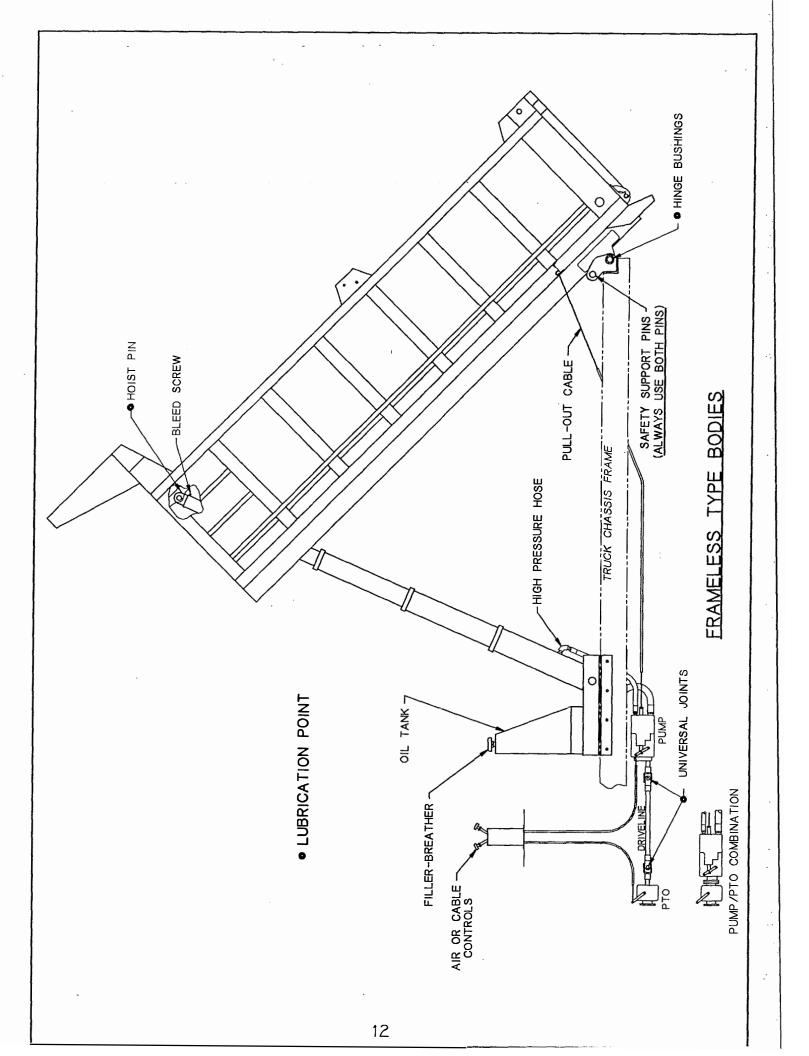
B. VALVE PULL-OUT ADJUSTMENT

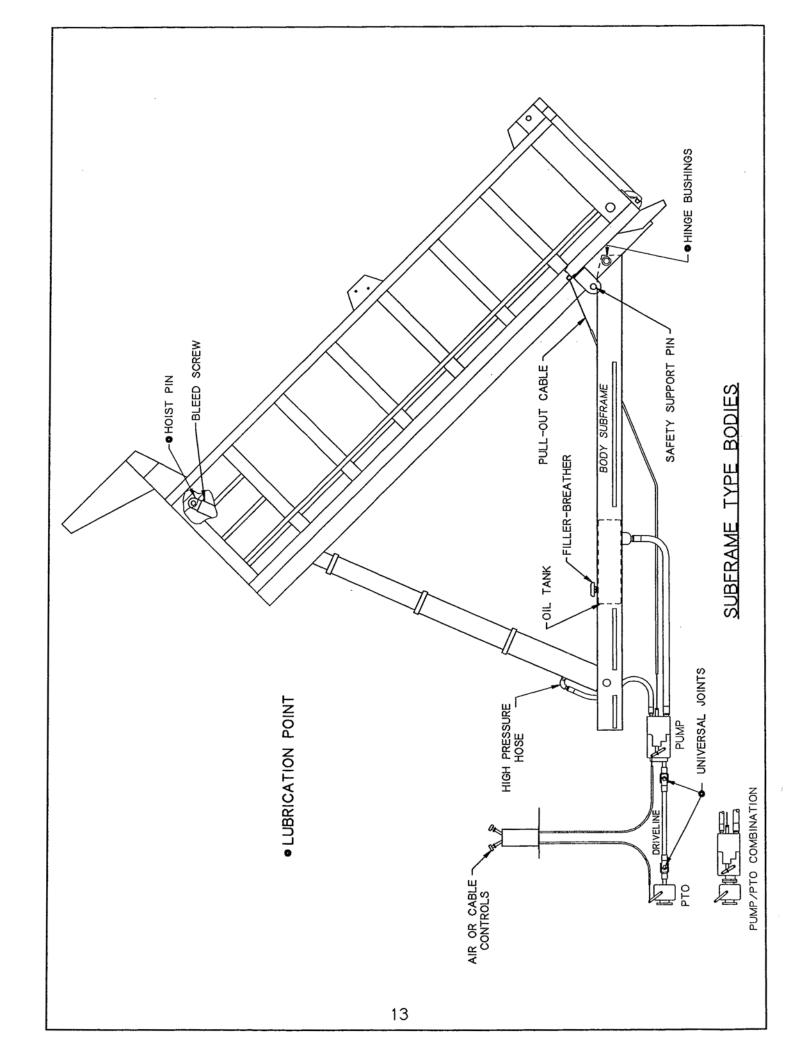
- I. RAISE THE BODY AND BLOCK WITH SAFETY SUPPORT BAR OR PINS
- 2. LOOSEN THE REAR CLAMP ON THE CABLE AND RAISE THE BODY TO ITS FULLEST EXTENT.
- 3. LOWER THE BODY 3 TO 4 INCHES AND SET THE VALVE CONTROL IN THE 'HOLD' POSTION.
- WITH THE BODY SECURELY BLOCKED WITH SAFETY SUPPORT BAR OR PINS, REATTACH THE CABLE TO THE BODY BEING CAREFUL TO ELIMINATE ALL SLACK.
- 5. IN OPERATION, WHEN THE BODY REACHES THIS POSITION, THE CONTROL VALVE WILL BE PULLED TO THE 'HOLD' POSITION.

<u>SECTION IV - ADJUSTMENTS AND REPAIRS (CONTINUED)</u>

C. HYDRAULIC CYLINDER REPAIRS

IF CYLINDER REPAIRS OR SERVICE OTHER THAN PACKING REPLACEMENT ARE REQUIRED, THE CYLINDER SHOULD BE RETURNED TO ROGERS FOR INSPECTION AND POSSIBLE REBUILDING.





SECTION V TROUBLESHOOTING GUIDE

CAUSE

A. FAILURE TO RAISE LOAD

- PUMP SHAFT NOT TURNING.
- CONTROL LINKAGE PARTS WORN OR MISSING.
- CONTROL VALVE SPOOL NOT MOVING TO 'RAISE' POSITION.
- 4. HYDRAULIC LINE FAILURE.
- 5. AIR IN HYDRAULIC SYSTEM.
- 6. INSUFFICIENT HYDRAULIC OIL IN SYSTEM.
- MALFUNCTION OF RELIEF VALVE.
- 8. DEFECTIVE PUMP.

B. CYLINDER 'BANGS' AT TOP OF STROKE

I. PULL-OUT CABLE NOT PROPERLY FUNCTIONING.

C. BODY DOES NOT LOWER

- I. CYLINDER IS SCRATCHED, SCORED OR BULGED.
- 2. CONTROL VALVE SPOOL NOT MOVING TO 'DOWN' POSITION.
- 3. HYDRAULIC HOSE IS BLOCKED.

D. BODY FALLS DUE TO CYLINDER STAGES COMING DOWN OUT OF SEQUENCE

- I. CYLINDER STAGE DRY.
- CYLINDER PLUNGER SCRATCHED, SCORED OR BULGED.

REMEDY

- CHECK PTO/PUMP DRIVE LINE. REPLACE WORN OR MISSING PARTS.
- 2. CHECK LINKAGE FOR PROPER CONNECTIONS. REPLACE WORN OR MISSING PARTS.
- INSPECT CONTROL LINKAGE AND CHECK FOR FULL VALVE SPOOL TRAVEL.
- REPLACE HOSE IF LEAKING, PINCHED OR COLLAPSED.
- 5. BLEED AIR AS DIRECTED IN SECTION IV-A
- 6. ADD OIL AS NEEDED.
- DISASSEMBLE AND CLEAN RELIEF VALVE.
- 8. DISASSEMBLE PUMP AND INSPECT WEAR PLATES. REPLACE WEAR PLATES AND SEALS AS NEEDED. IF HOUSING SHOWS EXCESSIVE WEAR OR DEEP SCRATCHES, IT MAY NEED REPLACING.
- I. IF CABLE IS BROKEN, IT MUST BE REPLACED. IF LOOSE, ADJUST PER SECTION IV-B.
- CONTACT ROGERS MFG. CO. FOR REPAIR OR REPLACEMENT.
- INSPECT CONTROL VALVE LINKAGE AND CHECK FOR FULL VALVE SPOOL TRAVEL.
- 3. INSPECT HOSE FOR PINCHES OR KINKS.
- I. SQUIRT LIGHTWEIGHT OIL ON DRY STAGES.
- CONTACT ROGERS MFG. CO. FOR REPAIR OR REPLACEMENT.

SECTION V - TROUBLESHOOTING (CONTINUED)

CAUSE

E. BODY LOWERS ERRATICALLY

- I. CYLINDER STAGE DRY.
- 2. AIR IN CYLINDER.

F. HOIST DELAYS IN LIFTING LOAD

- I. AIR IN CYLINDER.
- 2. COLLAPSED SUCTION HOSE.
- 3. WORN PUMP.

G. BODY WILL NOT HOLD IN RAISED POSITION

I. CHECK VALVE LEAKING.

NOTE: AN OPEN CHECK VALVE WILL ALLOW OIL TO FLOW INTO THE PUMP AND OFTEN CAUSE THE PUMP SHAFT TO ROTATE BACKWARDS. WITH THE VALVE SPOOL IN THE 'RAISE' POSITION AND THE BODY UP, DISENGAGE THE PTO AND INSPECT THE PUMP TO DETERMINE IF THE SHAFT IS ROTATING BACKWARDS.

REMEDY

- 1. SQUIRT LIGHTWEIGHT OIL ON DRY STAGE.
- 2. BLEED AIR AS DIRECTED IN SECT. IV-A,
- I. BLEED AIR AS DIRECTED IN SECT. IV-A.
- 2. REPLACE HOSE.
- 3. SEE SECTION V-A8.

 INSPECT CHECK VALVE SEAT AND CLEAN CHECK VALVE.

- H. OIL LEAKING OUT OF FILLER-BREATHER CAP
 - I. OIL RESERVOIR IS OVERFILLED.
 - 2. AIR IN CYLINDER.

- I. WITH BODY RAISED AND SUPPORTED WITH THE SAFETY SUPPORT BAR OR PINS, THE OIL LEVEL IN THE RESERVOIR SHOULD BE 2 TO 3 INCHES. DRAIN OFF EXCESS OIL.
- 2. BLEED AIR AS DIRECTED IN SECT. IV-A.

SECTION V - TROUBLESHOOTING (CONTINUED)

CAUSE

REMEDY

J. OVERHEATING OF HYDRAULIC OIL OR HYDRAULIC SYSTEM

- I. OPERATING UNIT AT ROAD SPEEDS WITH I. PTO SHOULD BE ENGAGED ONLY WHEN PTO ENGAGED.

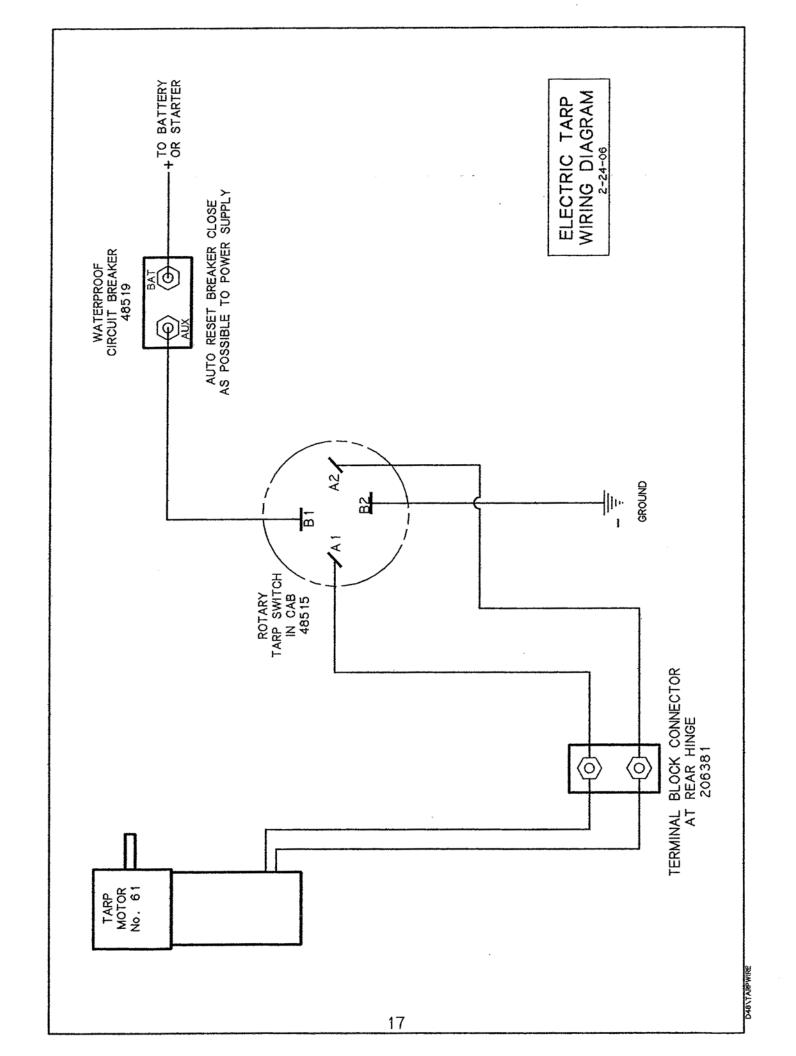
 DUMPING. OPERATING PTO AT ROAD
 - PTO SHOULD BE ENGAGED ONLY WHEN DUMPING. OPERATING PTO AT ROAD SPEEDS CAUSES EXTREME HEAT AND SEVERE DAMAGE.
- 2. RELIEF VALVE PRESSURE SETTING IS TOO LOW.
- 2. RESET PRESSURE RELIEF VALVE.
- 3. RUNNING PUMP FOR AN EXCESSIVE AMOUNT OF TIME WITH BODY RAISED.
- PUMP SHOULD NOT BE ALLOWED TO RUN EXCESSIVELY AFTER THE RAISING CYCLE.

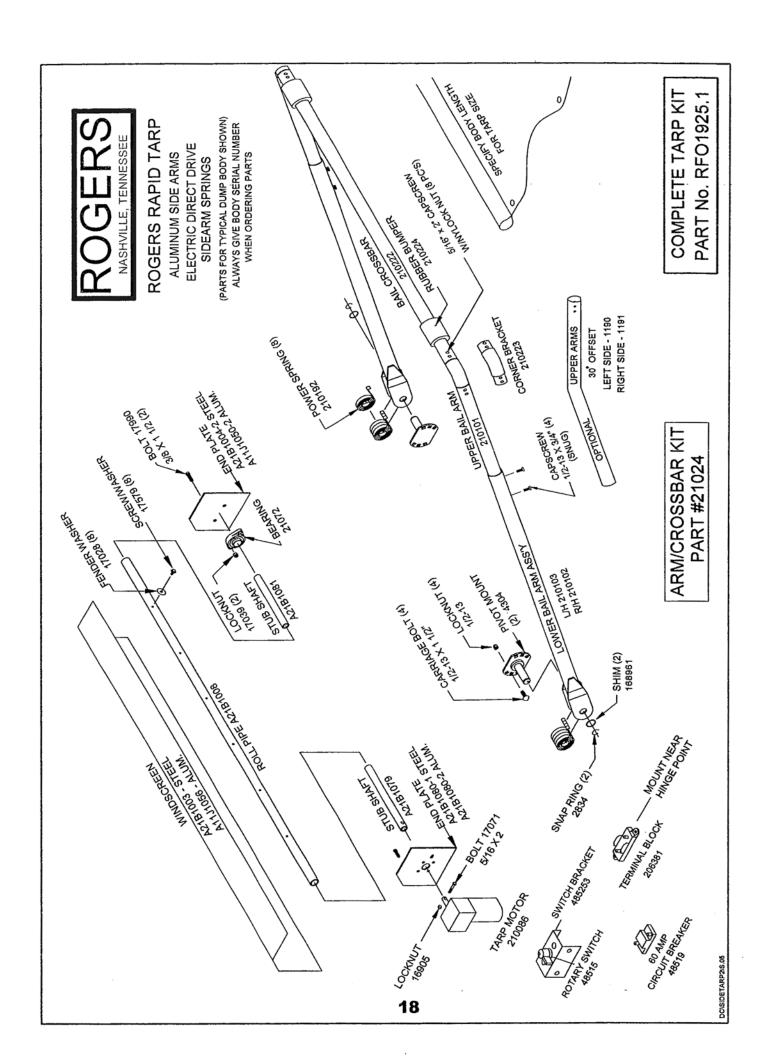
K. EXCESSIVE AIR BUILD-UP IN HYDRAULIC SYSTEM

- I. CONTROL VALVE LEFT IN 'LOWER' POSITION.
- I. OPERATE THE TRUCK OVER THE ROAD WITH THE CONTROL LEVER IN THE 'HOLD' POSITION. OPERATING IN THE 'LOWER' POSITION TENDS TO LET OIL DRAIN FROM THE CYLINDER WHICH CAN ALLOW AIR TO ENTER. OPERATING IN THE 'RAISE' POSITION INCREASES THE DANGER OF RAISING THE BODY IN TRANSIT IF THE PTO ACCIDENTALLY BECOMES ENGAGED.
- 2. INSUFFICIENT OIL IN THE RESERVOIR TANK.
- 2. ADD OIL AS NEEDED.

3. PUMP LEAKING.

- REPLACE PUMP SHAFT PACKING AND/OR SEALS.
- 4. SUCTION HOSE OR FITTINGS LEAKING.
- CHECK SUCTION HOSE AND FITTINGS FOR LEAKS. TIGHTEN OR REPLACE FITTINGS AND HOSE AS REQUIRED.





TARP CARE AND MAINTENANCE

TRUCK COVERS PERFORM AND LAST LONGER WHEN BASIC CARE AND MAINTENANCE GUIDELINES ARE FOLLOWED. IF YOU HAVE QUESTIONS OR ARE HAVING PROBLEMS, CALL US OR ASK ONE OF OUR DEALERS HOW WE CAN MAKE YOUR TARPS LAST LONGER OR WORK BETTER.

TRUCK COVER CARE

TRUCK COVER FABRICS ARE DESIGNED TO TAKE EXTREME HEAT AND COLD, RESIST TEARING AND RUBBING AND HANDLE HIGH-SPEED STRESS. EACH MATERIAL HAS ITS OWN ATTRIBUTES. THE GENERAL CARE GUIDELINES LISTED HERE, PLUS COMMON SENSE AND GOOD JUDGEMENT, WILL EXTEND A TRUCK COVERS LIFE.

SELECTION

CHOOSE THE CORRECT MATERIAL FOR THE JOB. TARP MATERIALS WORK GREAT WHEN USED IN THE CORRECT APPLICATION, BUT WHEN THE MATERIAL IS USED IN OTHER APPLICATIONS, IT CAN CAUSE A TARP TO WEAR OUT PREMATURELY. MAKE SURE YOU HAVE THE RIGHT MATERIAL FOR YOUR APPLICATION OR CALL US FOR A RECOMMENDATION.

WIND WHIP

A SECURE TIE DOWN IS REQUIRED FOR BEST COVER PERFORMANCE. WIND WHIP IS ONE OF THE MOST DAMAGING WEAR FACTORS TO A TARP. AIRFLOW AND MATERIAL STRENGTH ARE TWO FACTORS THAT MUST BE TAKEN INTO CONSIDERATION WHEN SELECTING A MATERIAL FOR YOUR APPLICATION.

TIE DOWN PROBLEMS CAN BE AVOIDED BY FOLLOWING THESE TIPS:

- I) A SOLID TARP WHICH HAS BEEN LOOSELY TIED DOWN OR NOT TIED DOWN AT ALL CAN GET TORN APART. AT HIGHWAY SPEEDS, WAVES WILL RUN THROUGH THE COVER FROM FRONT TO BACK AND CAUSE EXCESSIVE WEAR.
- 2) WHEN USING A SOLID MATERIAL ON FRONT-TO-REAR (ARM STYLE) TARP SYSTEMS, TARP FLAPS ARE HIGHLY RECOMMENDED. DEAD AIR UNDER THE TARP WILL CAUSE THE TARP TO LIFT UP AND BILLOW. THIS WILL IN TURN CAUSE THE ARMS TO BOUNCE AND CAN CAUSE DAMAGE TO THE TARP AND TARP SYSTEM. USING BUNGEE STRAPS OR ELASTIC SHOCK CORD TO SECURE A TARP WILL KEEP THE AIR FROM CAUSING PROBLEMS FOR YOUR TARP.

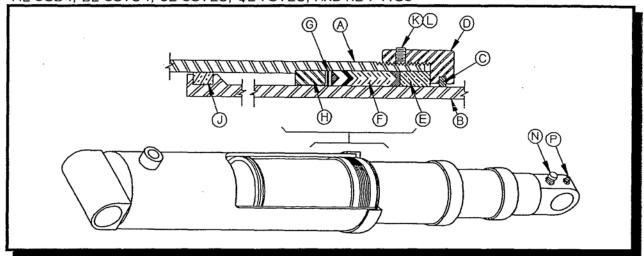
TRUCK COVER MAINTENANCE

WHEN REPAIRS ARE NEEDED, DOING THE JOB RIGHT THE FIRST TIME CAN SAVE TIME AND MONEY. A DECISION MUST BE MADE ON THE COST OF THE REPAIR vs. THE OVERALL COST OF A NEW TARP. WHEN DEALING WITH A FRONT-TO-REAR STYLE TARP, IT IS A BETTER DEAL TO BUY A NEW TARP THAN TO HAVE A DAMAGED TARP REPAIRED. YOU SHOULD EXPECT TO PAY ABOUT 50% OF THE COST OF A NEW FRONT-TO-REAR STYLE TARP IN ORDER TO HAVE ON REPAIRED.

SECTION VI-PARTS LISTS (CONTINUED)

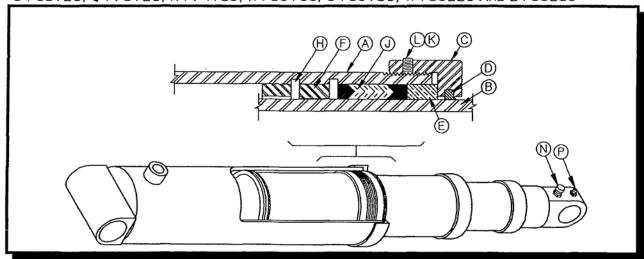
TELESCOPIC CYLINDER PARTS FOR CYLINDER MODEL: L2-5360, K2-5372,

M2-5384, B2-63104, C2-63120, Q2-73120, AND R2-74135



ПЕМ	PART NUMBER	DESCRIPTION	REQUIRED
A-B		CYLINDER SLEEVES	NOT REPLACED
C-F	D3009W	PACKING & WIPER ASS'Y. 3 IN.	1
C-F	D4009W	PACKING & WIPER ASS'Y. 4 IN.	1
C-F	D5009W	PACKING & WIPER ASS'Y. 5 IN.	1
C-F	D6009W	PACKING & WIPER ASS'Y. 6 IN.	1
C-F	D7009W	PACKING & WIPER ASS'Y. 7 IN.	1
D	YA3011-37	PACKING NUT - 3 IN.	1
D	YA3011-47	PACKING NUT - 4 IN.	1
D	YA3011-57	PACKING NUT - 5 IN.	i
D	YA3011-67	PACKING NUT - 6 IN.	1
D	YA3011-77	PACKING NUT - 7 IN.	I
E	J1003-1-3	BEARING RING - 3 IN.	i
E	J1003-1-4	BEARING RING - 4 IN.	1
E	J1003-1-5	BEARING RING - 5 IN.	i
E	J1003-1-6	BEARING RING - 6 IN.	i
E	J1003-1-7	BEARING RING - 7 IN.	1
G	P-1327-37	WAVE SPRING - 3 IN.	I
G	P-1327-47	WAVE SPRING - 4 IN.	ł
G	P-1327-57	WAVE SPRING - 5 IN.	ī
G	P-1327-67	WAVE SPRING - 6 IN.	1
G	P-1327-77	WAVE SPRING - 7 IN.	1
Н	F3020	STOP RING - 3 IN.	I
Н	F4020	STOP RING - 4 IN.	1
н	F5020	STOP RING - 5 IN.	I
Н	F6020	STOP RING - 6 IN.	ı
H	F7020	STOP RING - 7 IN.	-1
J	U3023-32	PISTON BEARING - 3 IN.	i
J	U3023-42	PISTON BEARING - 4 IN.	ì
J	U3023-52	PISTON BEARING - 5 IN.	1
J	U3023-62	PISTON BEARING - 6 IN.	1
J	U3023-72	PISTON BEARING - 7 IN.	1
K	X30-41	SET SCREW	3
L	X145-4	NYLON BALL	3
N	A2688	BLEEDER SCREW	ŧ
Р	G-7009	GREASE FITTING	ł

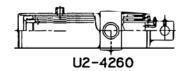
<u>TELESCOPIC CYLINDER PARTS FOR CYLINDER MODEL:</u> K4-5373, M4-5384, C4-63120, Q4-73120, R4-74135, N4-85166, G4-85190, W4-85220 AND Z4-85235

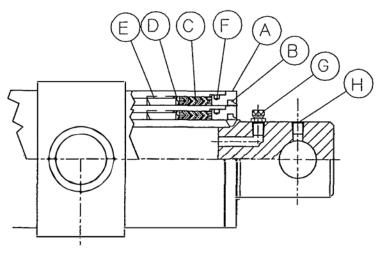


(TEM	PART NUMBER	DESCRIPTION	REQUIRED
<u>ΠΕΜ</u> Α-Β	TART NOMBER	CYLINDER SLEEVES	NOT REPLACED
c	A-2527	HEAD NUT, 3 IN.	1
c	A-2217	HEAD NUT, 4 IN.	, 1
c	A-2216	HEAD NUT, 5 IN.	I
c	A-2215	HEAD NUT, 6 IN.	i
c	A-2206	HEAD NUT. 7 IN.	i i
c	A-2442	HEAD NUT, 8 IN.	i
D-J	A-3379W	PACKING & WIPER ASS'Y, 3 IN.	i i
D√J	A-3380W	PACKING & WIPER ASS'Y, 4 IN.	i
D-J	A-245 IW	PACKING & WIPER ASS'Y, 5 IN.	1
D√J	A-338 IW	PACKING & WIPER ASS'Y, 6 IN.	i
D√	A-3382W	PACKING & WIPER ASS'Y, 7 IN.	1
D-J	A-3383W	PACKING & WIPER ASS'Y, 8 IN.	ı
E	A-2475	BUSHING, 3 IN.	1
Ε	A-2227	BUSHING, 4 IN.	1
Ε	A-2226	BUSHING, 5 IN.	I
Ε	A-2225	BUSHING, 6 IN.	1
Ε	A-2411	BUSHING, 7 IN.	1
Ε	A-2447	BUSHING, 8 IN.	1.1
F	A-2475	SPACER, 3 IN.	1
F	A-2227	SPACER, 4 IN.	1
F	A-2226	SPACER, 5 IN.	1
F	A-2225	SPACER, 6 IN.	1
F	A-2411	SPACER, 7 IN.	1
F	A-2447	SPACER, 8 IN.	1
н	A-2477	RETAINING RING, 3 IN.	1
н	A-2229	RETAINING RING, 4 IN.	1
н	A-2237	RETAINING RING, 5 IN.	1
н	A-2228	RETAINING RING, 6 IN.	1
Н	A-3012	RETAINING RING, 7 IN.	1
н	A-3013	RETAINING RING, 8 IN.	1
ĸ	SS-1-1	SET SCREW	3
L	10-11641	NYLON INSERT	3
N	A-2688	BLEEDER SCREW	1
P	800	GREASE FITTING	1

SECTION VI - PARTS LISTS (CONTINUED)

TELESCOPIC CYLINDER PARTS FOR CYLINDER MODEL: U2-4260

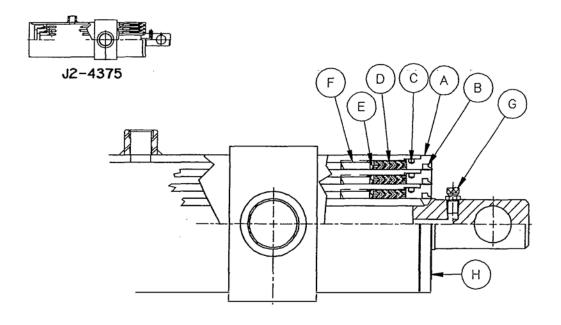




<u>ПЕМ</u>	PART NUMBER	DESCRIPTION	REQUIRED
		_	
Α	AC3011-37	PACKING NUT - 4"	1
Α	AC3011-27	PACKING NUT - 3"	1
В	Y3026-37	WIPER RING - 4"	1
В	Y3026-27	WIPER RING - 3"	1
С	AJ3009-37	PACKING ASS'Y - 4"	1
С	AJ3009-27	PACKING ASS'Y - 3"	1
D	P1327-37	WAVE SPRING - 4"	1
D	P1327-27	WAVE SPRING - 3"	1
E	AG3020-37	STOP RING - 4"	1
E	AG3020-27	STOP RING - 3"	1
F	C1633-3	NYLON PLUG	2
G	X-29-1	BLEED SCREW	1
н	X5-5	GREASE FITTING	1

SECTION VI - PARTS LISTS (CONTINUED)

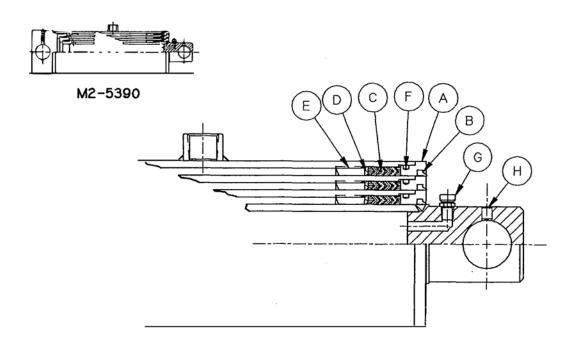
TELESCOPIC CYLINDER PARTS FOR CYLINDER MODEL: J2-4375



PART NUMBER	DESCRIPTION	REQUIRED
AC3011-37	PACKING NUT - 4"	1
AC3011-27	PACKING NUT - 3"	1
AC3011-17	PACKING NUT - 2"	I
Y3026-37	WIPER RING - 4"	I
Y3026-27	WIPER RING - 3"	1
GA3026-19	WIPER RING - 2"	1
AJ3009-37	PACKING ASS'Y - 4"	i
AJ3009-27	PACKING ASS'Y - 3"	ł ·
AJ3009-17	PACKING ASS'Y - 2"	l l
P1327-37	WAVE SPRING - 4"	I
P1327-27	WAVE SPRING - 3"	i
P1327-17	WAVE SPRING - 2"	1
AG3020-37	STOP RING - 4"	1
AG3020-27	STOP RING - 3"	I
AG3020-17	STOP RING - 2"	I
C1633-3	NYLON PLUG	3
X-29-1	BLEED SCREW	1
3911431170	SET SCREW	6
	AC3011-37 AC3011-27 AC3011-17 Y3026-37 Y3026-27 GA3026-19 AJ3009-37 AJ3009-17 P1327-37 P1327-27 P1327-17 AG3020-37 AG3020-27 AG3020-17 C1633-3 X-29-1	AC3011-37 PACKING NUT - 4" AC3011-27 PACKING NUT - 3" AC3011-17 PACKING NUT - 2" Y3026-37 WIPER RING - 4" Y3026-27 WIPER RING - 3" GA3026-19 WIPER RING - 2" AJ3009-37 PACKING ASS'Y - 4" AJ3009-27 PACKING ASS'Y - 3" AJ3009-17 PACKING ASS'Y - 2" P1327-37 WAVE SPRING - 4" P1327-27 WAVE SPRING - 3" P1327-17 WAVE SPRING - 2" AG3020-37 STOP RING - 4" AG3020-17 STOP RING - 3" AG3020-17 STOP RING - 2" C1633-3 NYLON PLUG X-29-1 BLEED SCREW

SECTION VI - PARTS LISTS (CONTINUED)

TELESCOPIC CYLINDER PARTS FOR CYLINDER MODEL: M2-5390



ПЕМ	PART NUMBER	DESCRIPTION	REQUIRED
Α	AC3011-47	PACKING NUT - 5"	1
A	AC3011-37	PACKING NUT - 4"	1
A	AC3011-27	PACKING NUT - 3"	ı
В	Y3026-47	WIPER RING - 5"	1
В	Y3026-37	WIPER RING - 4"	1
В	Y3026-27	WIPER RING - 3"	1
С	AJ3009-47	PACKING ASS'Y - 5"	1
С	AJ3009-37	PACKING ASS'Y - 4"	
С	AJ3009-27	PACKING ASS'Y - 3"	· 1
D	P1327-47	WAVE SPRING - 5"	I
D	P1327-37	WAVE SPRING - 4"	1
D	P1327-27	WAVE SPRING - 3"	1
E	AG3020-47	STOP RING - 5"	1
E	AG3020-37	STOP RING - 4"	I
E	AG3020-27	STOP RING - 3"	1
F	C1633-3	NYLON PLUG	3
G	X-29-1	BLEED SCREW	1
н	X5-5	GREASE FITTING	2

Item#	Description	Part Number	Qty	Series		Description	Part Number	Qty	Series
1	Shaft End Cover	314 5039 201	1	С	27	Ring Seal	391 2585 009	4	С
		313 5033 435	1	C2			391 2585 009	3	C2
		308 5016 201	1	G			391 2585 006	4	G
		308 5030 201	1	G2			391 2585 006	3	G2
2	Gear Housing				28	Retaining Ring	391 2681 485	1	G, G2
	2°	314 8020 100	1	C, C2			391 2681 486	1	G, G2
	2 1/2"	314 8025 100	1	C, C2	29	Retaining Ring	391 3782 126	1	G, G2
	3/4"	308 8007 901	1	G, G2	30	Snap Ring	391 2681 493	1	С
	1 1/2"	308 8015 901	1	G, G2			391 2686 065	1	C2
	2"	308 8020 901	1	G, G2			391 2681 487	1	G
3	Gear Set						391 2686 063	1	G2
	2"	314 2920 640	1	c	31	Pocket Seals	391 2882 050	12	C, C2
	2 1/2"	314 2925 640	1	lc l			391 2882 086	12	G, G2
	2"	313 2920 130	1	C2	32	Lip Seal	391 2883 096	2	С
	2 1/2"	313 2925 130	1	C2			391 2883 115	1	C2
	3/4"	312 2907 842	1	G			391 2883119	2	G
	1 1/2"	312 2915 842	1	G			391 2883 119	1	G2
	2"	312 2920 842	1	G	33	Gasket Seal	391 2884 021	2	C, C2
	3/4"	312 2907 130	1	G2			391 2884 019	2	G, G2
	1 1/2"	312 2915 130	1	G2	34	Optional Sleeve	391 3283 052	1	C, C2, G, G2
	2"	312 2920 130	1	G2	35	Seal Retainer	391 3383 087	1	C2
4	Optional Bracket	314 0100 005	1	c			391 3381 040	1	G2
5	Port End cover	(not servicable)	1		36	Spacer	.3913383069	1	G2
6	Air Shift Kit	314 9414 017	1	C, C2, G, G2	37	Spring	391 3581 212	1	G, G2
7	Valve Spool	(not servicable)	1		38	Detent Spring	391 3581 383	1	C, C2, G, G2
8	End Cap	314 0100 003	1	C, C2 (detent)	39	Check Assembly	391 3681 001	2	C2, G2
	,,,,,,	308 4000 100	1	G, G2	40	Washer	391 3784 029	4	C, C2
		308 4000 102	1	G, G2 (detent)			391 3782 146	4.	G, G2
9	Relief Valve	355 9001 067	1	C, C2	41	Washer	391 3784 028	8	C, C2
		355 9001 197	1	G, G2	42	Snap Ring	391 2688 003	1	C, C2
10	Detent ball	391 0282 009	1	C, C2, G, G2	43	Lock Washer	391 3788 002	1	C, C2, G, G2
11	Roller Bearing	391 0381 059	4	C, C2	44	Hex Nut	391 1451 076	4	С
		391 0381 058	4	G, G2			391 1451 076	6	C2
12	Bracket	391 0981 010	1	C, C2	45	Cap Screw			
		391 0981 007	1	G, G2		2"	391 1401 111	4	С
13	Skt-Hd Cap Screw		2	C, C2, G, G2		2 1 /2 "	391 1401 110	4	С
14	Stud					3/4"	391 1401 395	4	G, G2
	2"	391 1425 433	4	C2		1 1/2"	391 1401 381	4	G, G2
	2 1/2"	391 1425 432	4	C2		2"	391 1401 382	4	G, G2
15	Cap Screw	391 1401 082	4	C, C2					
		391 1433 020	2	G, G2					
16	Hex Nut	391 1451 076	4	c c					
. •		391 1451 076	6	C2					
17	Guide Spring	391 1642 136	1	G, G2					
18	Guide Spring	391 1642 137	1	G, G2					
19	Shaft Key	391 1781 021	1	C, G					
20	Spool End Cap	391 1881 073	1	C, C2					
20	Chock Fire oah	201 1001010		1	ì				7

391 1881 072 | 1 | G, G2

1

391 1985 014

391 2881 103

391 2085 009

391 2183 124

391 2185 016

391 2185 012

391 2185 013

391 2282 006

391 2282 003

391 2583 079

21

22

23

24

25

Quad Ring Seal

"O"-Ring

Spirol Pin

Cover Plate

Thrust Plate

Pipe Plug

Detent Retainer

C, C2

1 C, C2, G, G2

1 C, C2, G, G2

1 G, G2

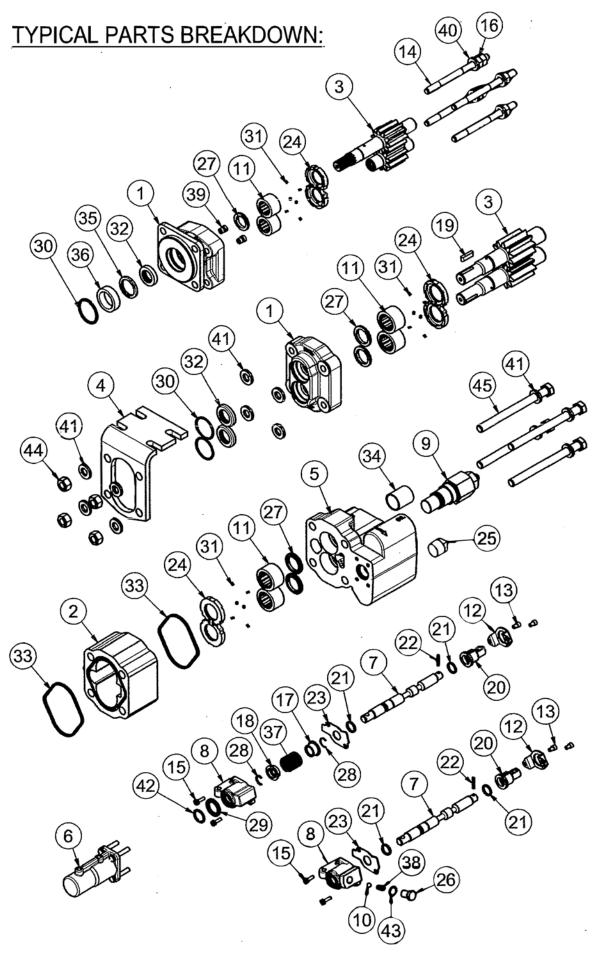
1 G, G2

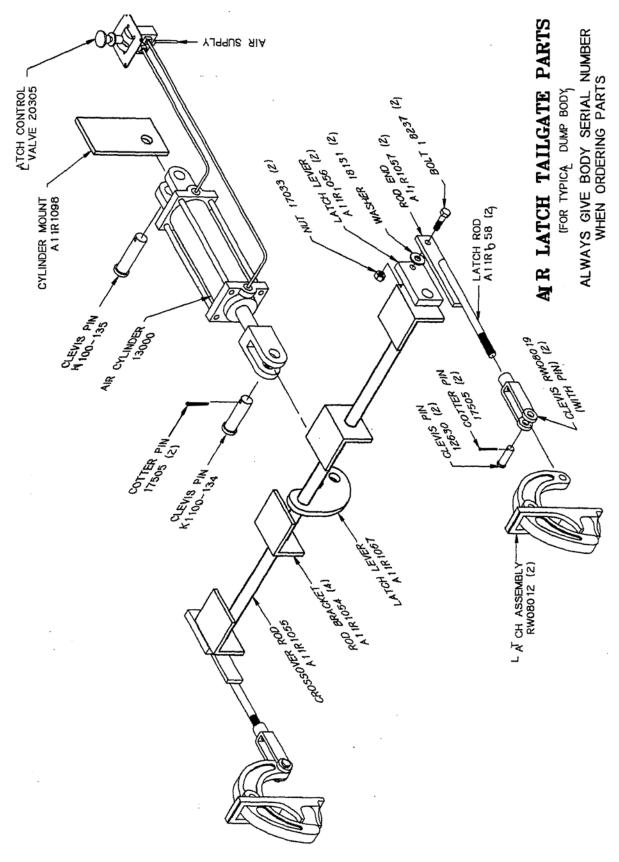
1 C, C2

1 G, G2

2 C

2 C2 2 G, G2 KEY:





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SECTION VI PARTS LIST MISCELLANEOUS DUMP BODY PARTS

PART NUMBER	DESCRIPTION
6050-R (LED)	OVAL TAILLIGHT - RED
1050-R (LED)	MARKER LIGHT - RED
I 050-A	MARKER LIGHT - AMBER
15910	3-BAR MARKER LIGHT - RED
B490-R	REFLECTOR - RED
B490-A	REFLECTOR - AMBER
RW07940	T/G HINGE PIN - NEW STYLE
RW07942	T/G SIDE PLATE HINGE - NEW STYLE
RW07944	T/G HINGE PLATE
L-123	T/G LEVER
13000	T/G AIR LATCH CYLINDER
20305	T/G AIR LATCH VALVE
RW08012	T/G LOWER LATCH ASSEMBLY
13505	HEAVY DUTY CABLE CONTROL MODULE
13500	CONTROL MOUNTING STAND
06333X	HEAVY DUTY CABLES *** (2 REQ'D)
RW08043	T/G CHAIN RETAINER
RW08044.1	T/G CHAIN KEEPER
CB-1230	T/G CHAIN BRACKET
RW08220 .	CYLINDER BOTTOM PIN
RW08221	CYLINDER TOP PIN
RW08233	BODY HINGE PIN
I 2CAT- I 2- I 2MPEE	3/4" PRESSURE HOSE ***

***SPECIFIES LENGTH IS REQUIRED

I 1/4" SUCTION HOSE ***

20C4-20-20MPEE