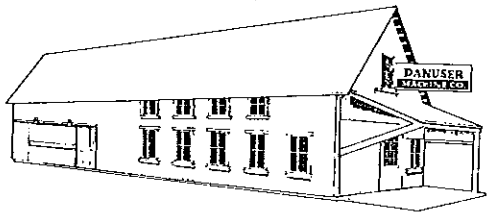
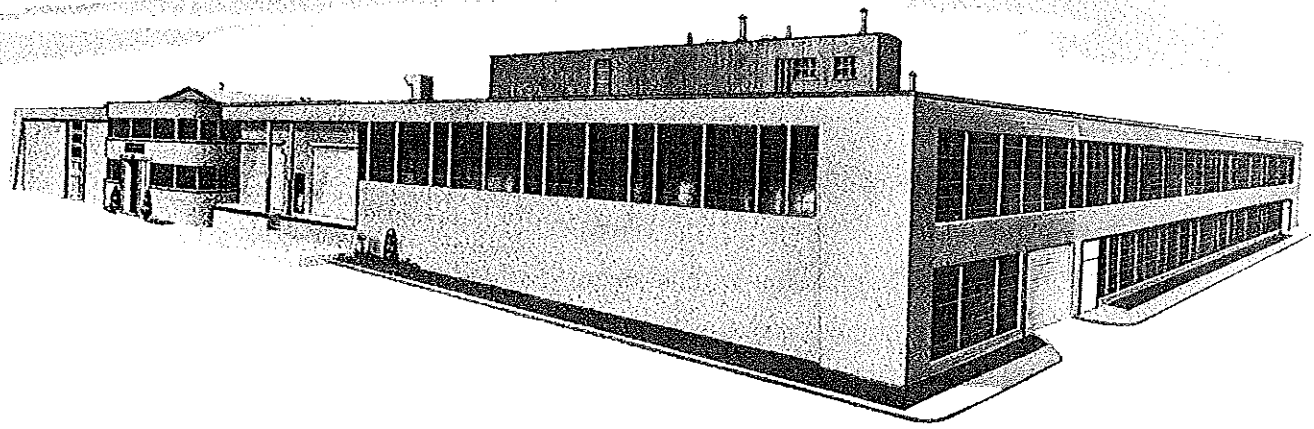
WARNING

Check your unit configuration against this manual to insure that your unit complies with current production safety standards. If your unit doesn't comply CONTACT Danuser Machine Co., Inc., IMMEDIATELY at (573) 642-2246.

Since 1910-



Building wagons and repairing all types of machinery was the business of my grandfather, K. B. Danuser, in this small shop. With pride in his Swiss craftsmanship, he established one policy for his concern — "the job had to be *right*".



A new, modern plant built by my father, Henry Danuser, is located on the original site. This building and its men are dedicated to the tradition of fine craftsmanship and the production of better machines for American fields. The challenge of changing economic conditions is being met with improved manufacturing methods to hold the price standards which are an integral part of Danuser Machine Company. From this sound growth will come new products, designed to better serve agriculture and industry.

Louis Danuser

IMPORTANT

Returning your registration card immediately assures proper dating of warranty on this implement. It also gives Danuser Machine Company the opportunity to provide you with information on changes in this product as they develop throughout the years.

Limited Warranty Policy

The Danuser Machine Company warrants its products for a period of one year (except for the G 20/40 gearbox which has a five year limited warranty) after date of sale by authorized dealer to be free from defects in material and workmanship, and will replace at its factory any part or parts thereof that shall be returned, with shipping charges prepaid, and which, when examined by us, shall disclose it to be defective, but this warranty shall not apply to implements or parts that have been subject to misuse, negligence, or accident, or that have been altered or repaired.

Items requiring your special attention in this manual or the decals on the implements are headed NOTE, **⚠ CAUTION**, **⚠ WARNING**, or **⚠ DANGER**. FAILURE to comply with a NOTE may lead to premature failure of the implement. FAILURE to comply with a **⚠ CAUTION** could result in damage or actual breakage of the implement or tractor, and minor personal injury. FAILURE to comply with a **⚠ WARNING**, or **⚠ DANGER** could result in personal injury or death.

⚠ WARNING

To prevent possible personal injury or death during assembly, installation, operation, adjustment, or removal of the implement, wear gloves, safety glasses or face shield, and do not wear loose clothing. Keep other persons a minimum of twenty-five feet (25') from any unit under power.

1. Guards and safety shields are for YOUR protection. DO NOT operate equipment unless they are in place.
2. DO NOT operate PTO with tractor safety shield removed.
3. Never travel with PTO in operation.
4. Operate all PTO-POWERED implements on standard 540 RPM tractors.
5. Shut off tractor engine, set brakes, and lower implement to ground before leaving tractor seat.
6. Our implements are designed for a one-man operation. It is the responsibility of the tractor operator to see that no one is in the proximity of the implement when it is started. DO NOT operate the implement with another person near or in contact with, any part of the implement, PTO drive, or Auger. Keep other persons at least twenty-five feet (25') from all implements in operation or under power.
7. DO NOT oil or adjust implement while in operation.
8. DO NOT attempt to operate implement on steep hillsides.
9. Reduce speed while transporting.
10. When the use of hand tools is required to perform any part of assembly, installation, removal, or adjustment of the implement, be sure the tools used are designed and recommended by the tool manufacturer for the specific task they will be used for.
11. Keep all bolts and nuts tight. Replace any damaged or worn parts immediately.

DANUSER MACHINE COMPANY

SERVICE ADJUSTMENT POLICY

LIMITED WARRANTY

The Danuser Machine Company warrants its products, for a period of one year (except for the G 20/40 gearbox which has a five year limited warranty) after sale by authorized dealer, to be free from defects in material and workmanship.

1. Parts may not be returned without authorization by Danuser Machine Company.

2. All products returned under a warranty inspection claim must be returned PREPAID to our factory.

3. To file a warranty inspection claim, your dealer must request from his Danuser Distributor a "SERVICE ADJUSTMENT REQUEST", which must be typed in triplicate. Forward the original and one duplicate through your dealer and distributor to DANUSER MACHINE COMPANY. If the return of the parts listed on your "SAR" is approved for warranty inspection, you will receive through your distributor and dealer the required "RETURN GOODS TAG(S)". You should then attach the tag(s) and return the parts through your dealer and distributor. Shipments arriving at our factory on a freight collect basis will be refused by our receiving department.

4. Our obligation under the above warranty is limited to repair or replacement at our factory of any part or parts thereof which the Danuser Machine Company determines to be defective.

5. Products or parts thereof which have been, by Danuser Machine Company's examination, improperly operated, damaged by accident or negligence, field repaired or altered, are not covered by this warranty.

6. Some purchased components, including gasoline engines, hydraulic motors, valves, and cylinders, but not limited to, are subject to the inspection and warranty of the respective manufacturer. Thus, delays in a warranty determination can be expected while we await their decisions. NOTE: Hydraulic valves, motors, and cylinders must arrive with all ports sealed from dirt and moisture. If they arrive with open ports, the warranty is void and no inspection will be made.

7. We reserve the right to change our specifications and design at any time.

8. This warranty shall not obligate Danuser Machine Company to bear any cost of labor for field replacement, testing, or adjustment.

DANUSER POST DRIVER
OPERATING AND MAINTENANCE INSTRUCTIONS

The following instructions will help you become familiar with the proper use of your Driver and obtain the greatest service life from it. In order that we may better serve you and your dealer, it is important that you fill out the enclosed registration card and mail it to us at once.

OPERATING INSTRUCTIONS

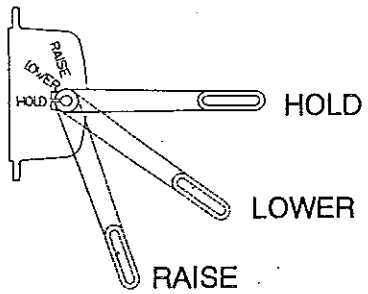
Before operating Driver, refer to Lubrication Instructions and lubricate as directed.

⚠ WARNING

After removing transport pin, care should be used when working around Driver as any small movement of the control handle will cause drive channel to drop. Keep other persons a minimum of twenty-five feet (25') from driving operation.

NOTE

Always operate the control handle in the lower half of its movement. Do not push up on the handle past 3 o'clock position, as the Driver will not operate properly.



Before actual post driving is begun, operator should become familiar with the operation of the Driver by raising and dropping drive channel on a heavy wooden block for a few minutes. Lowering the control handle slightly will cause the drive channel to drop. Further lowering of the control handle will cause the drive channel to raise. Anytime the control handle is released, it will return to neutral and the brakes will be applied. It will be found that a definite rhythm can be developed whereby the drive channel is caught and started to raise again immediately after striking the top of the post.

The control handle should never be lowered farther than is absolutely necessary to engage friction wheel and raise drive channel, as this places an excessive load on the friction wheel and shortens its life. Also, the friction wheel should never be left engaged after the drive channel has been raised to its maximum height.

⚠ WARNING

When guiding the post, always grip it in the cut-out area of the guide channel and avoid placing fingers such that they could be pinched between the post and the side of the channel.

When driving steel posts, the drive weight should not be raised more than 6 inches above the top of the post. It is recommended that a Danuser Steel Post Guide Sleeve (No. 2201) be used. This sleeve is available as extra equipment from your Danuser Dealer. When not in use, the driver should never be allowed to stand with the friction wheel engaged as this will flatten the rubber on the friction wheel and cause uneven operation.

DANUSER POST DRIVER MODEL MD-H1
LUBRICATION AND MAINTENANCE INSTRUCTIONS

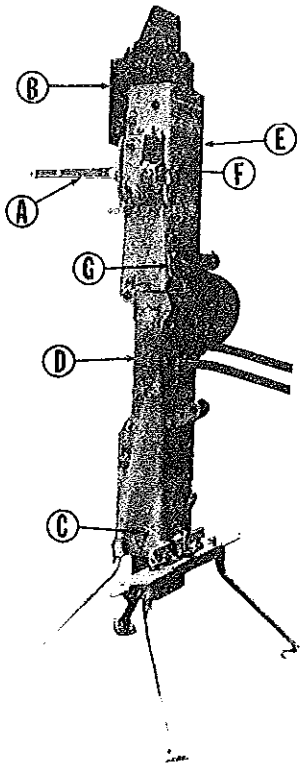


Figure 1.

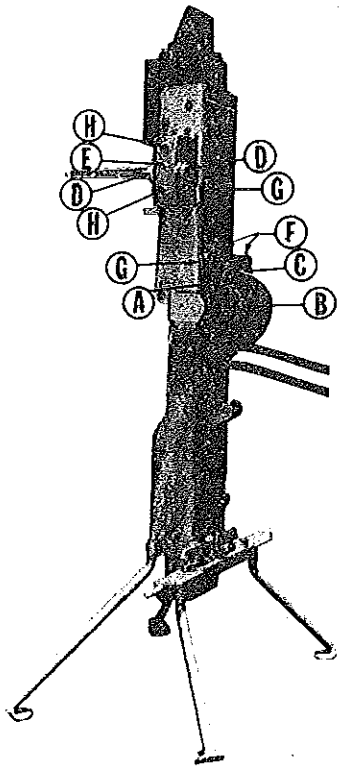


Figure 2.

Storage support stands shown are optional.

LUBRICATION INSTRUCTIONS

If the tractor hydraulic system has not been drained, flushed, and refilled with the recommended oil within the past 500 hours of operation, it should be done before attaching Driver to tractor.

Use a good grade of pressure gun grease at all points unless otherwise instructed. ⚠ **CAUTION**: Lubricant must never be allowed to get on either rubber friction surfaces or any part of drive channel contacted by the rubber fiction surfaces as this will shorten the life of the rubber and also cause unsatisfactory operation

EVERY 5 HOURS:

Lubricate bearings at each end of friction wheel shaft (B), Figure 2. Lubricate friction wheel cradle cam (C), Figure 2.

EVERY 10 HOURS:

Lubricate the following grease fittings:
Both bearings on control handle shaft (D), Figure 2;
brake release plate (E), Figure 2;
cradle camshaft bearings (F), Figure 2.
Apply 1 or 2 drops of SAE 30 or 40 oil to ball joints (G), Figure 2, on drive control rod and to studs (H), Figure 2, passing through control housing to brake release plate.

Channel guide bearings are lubricated and sealed at the factory and require no further lubrication throughout the life of the bearings.

MAINTENANCE INSTRUCTIONS

Under ordinary conditions, there are only three parts, the two brake blocks (E) & (F), Figure 1, and the friction wheel (A), Figure 2, which will show any appreciable wear and require adjustment.

When brakes are applied, the brake blocks should hold drive channel (B), Figure 1, in the center or slightly to left of center of guide channel (D), Figure 1 (as viewed by operator). This is controlled by adding or removing shims from under stationary brake block (E), Figure 1. The Driver is shipped with one thick and two thin shims at both top and bottom of stationary brake block. These shims may be used in any combination as long as the total thickness at top and bottom is equal. When adjustment of the stationary brake block has been changed, it may be necessary to change the adjustment of the brake release plate (E), Figure 2. Adjustment of this plate is controlled by the lock nuts at top and bottom They should be adjusted so that control handle (A), Figure 1, has 1 to 2 inches free movement at its outer end.

When the control handle (A), Figure 1, is in "Hold" position and edges of the drive channel (B), Figure 1, are out against guide bearings, there should be from 1/16 to 1/8 inch of space between friction wheel (A), Figure 2, and back of drive channel. A piece of No. 14 gage wire may be used as a feeler gage and should just slide between friction wheel and drive channel. This spacing can be obtained by removing or adding shims alternately above and below the friction wheel.

If for some reason the Driver is ever found to be completely out of adjustment, the following procedure can be used to put it in operating condition again. Remove transport pin (C), Figure 1, and drop drive channel (B), Figure 1, onto a wooden block placed on ground. Disconnect ball joint at lower end of control rod (G), Figure 1, from lever on cradle camshaft. Adjust brakes (E) & (F), Figure 1, and friction wheel (A), Figure 2, setting as outlined above. Before checking friction wheel spacing, be sure that cradle cam is released and friction wheel is out as far from drive channel as cradle cam will allow. Adjust length of control rod until lower ball joint stud slips freely into hole in cradle camshaft lever. Secure with nut and lockwasher and test operation of Driver. If it seems desirable to have more control handle movement between the point where the brakes release and the friction wheel engages, this may be obtained by lengthening control rod slightly from the setting obtained above. Or, if slightly less control handle movement is desired, this may be obtained by shortening control rod.

DANUSER POST DRIVER
ASSEMBLY INSTRUCTIONS MODEL MD-H1

Tractor must have a hydraulic system capable of delivering 4 to 10 GPM at 1,000 to 2,500 PSI. An oil reservoir or sump of 3 gallons minimum capacity is also required.

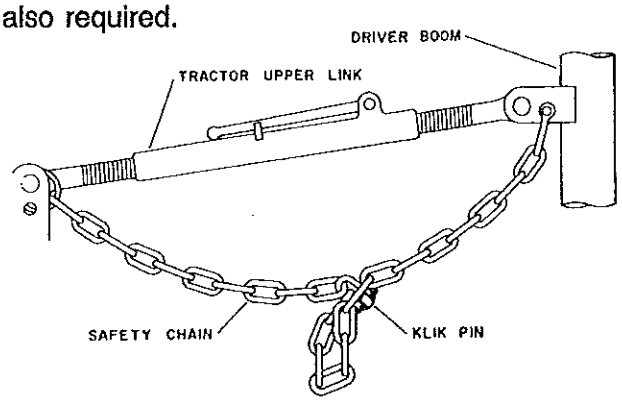


Figure 3

⚠ DANGER

Before attaching Driver to tractor, the following safety chain adjustment must be made, see Figure 3. Extend the tractor upper link to its maximum length (where it comes apart). Reassemble and shorten it approximately 3 inches. Measure this length. Attach Driver to tractor with ring in safety chain fastened to tractor upper link bracket as shown. Lengthen tractor upper link to previously measured length, pull slack from safety chain, and pin to this length with klik-pin. Leave safety chain at this set length and plumb Driver with upper link as needed.

Since trouble free operation of any hydraulic motor driven implement depends upon the cleanliness of the hydraulic oil supply, the lubrication instructions for draining, flushing, and refilling the system should be carefully followed.

The hose connecting Driver to the hydraulic oil supply should be 3/8 inch inside diameter or larger.

These hoses should be connected to the closest tractor hydraulic outlet provided for remote hydraulic cylinder.

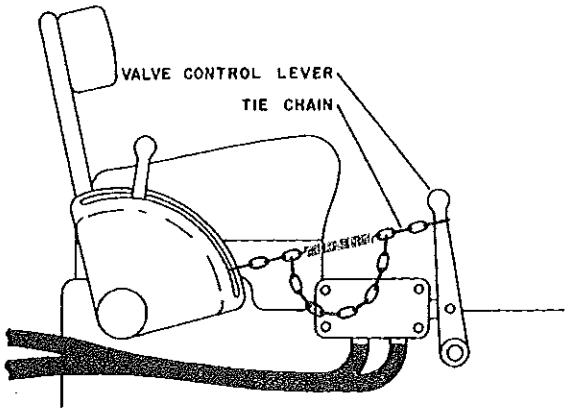


Figure 4

A spring loaded control lever tie chain is provided for holding tractor valve lever, controlling Driver operation in open position, see Figure 4.

Operate the tractor engine at either 1600 RPM, or a speed which will cause Driver to strike 25 or less full length blows per minute, whichever is slower.

If the tractor hydraulic system has a tendency to heat (190 degrees F. or more) during prolonged operation, stopping the Driver motor while transporting between posts will relieve this condition.

CONVERSION

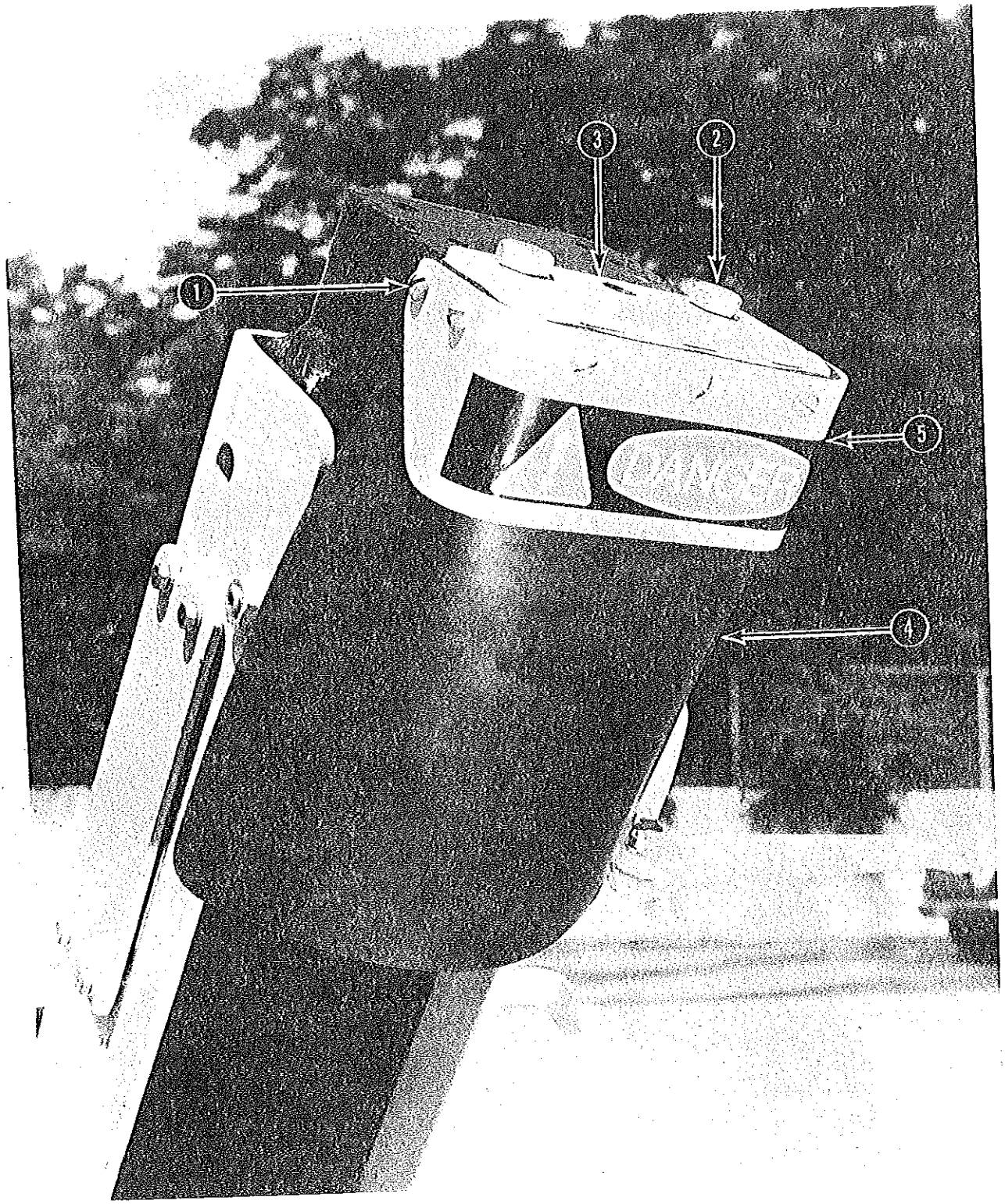
The Danuser Post Driver may be converted for breaking concrete, as follows: Attach the demolition head (Group No. 2298) to the driver head with four 5/8 x 1-1/2 cap screws and lockwashers furnished. This head is available as extra equipment from your Danuser Dealer.

Support drive channel (B), Figure 1, with a suitable hoist and remove transport pin (C), Figure 1.

Position control handle (A), Figure 1, in the "LOWER" position and raise drive channel (B), Figure 1, from guide channel (D), Figure 1. Invert the drive channel and reinsert it in the guide channel.

⚠ CAUTION

Insert transport pin (C), Figure 1, through the top holes in the guide channel and secure with klik-pin provided.

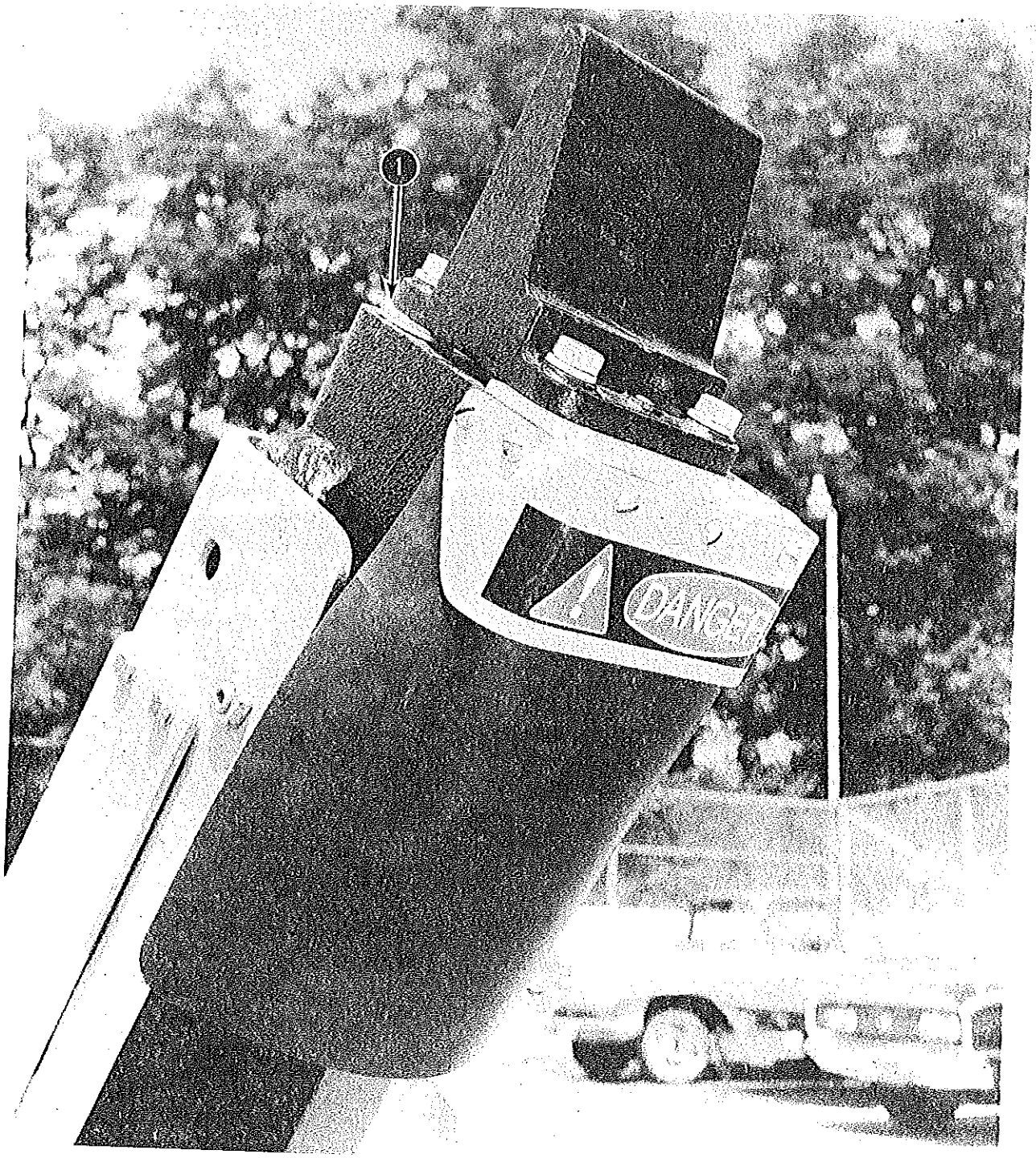


⚠ WARNING

SAFETY REGULATIONS REQUIRE THIS GUARD BE IN PLACE BEFORE OPERATING DRIVER.

PARTS LIST - DRIVER WEIGHT GUARD KIT NO. 3191

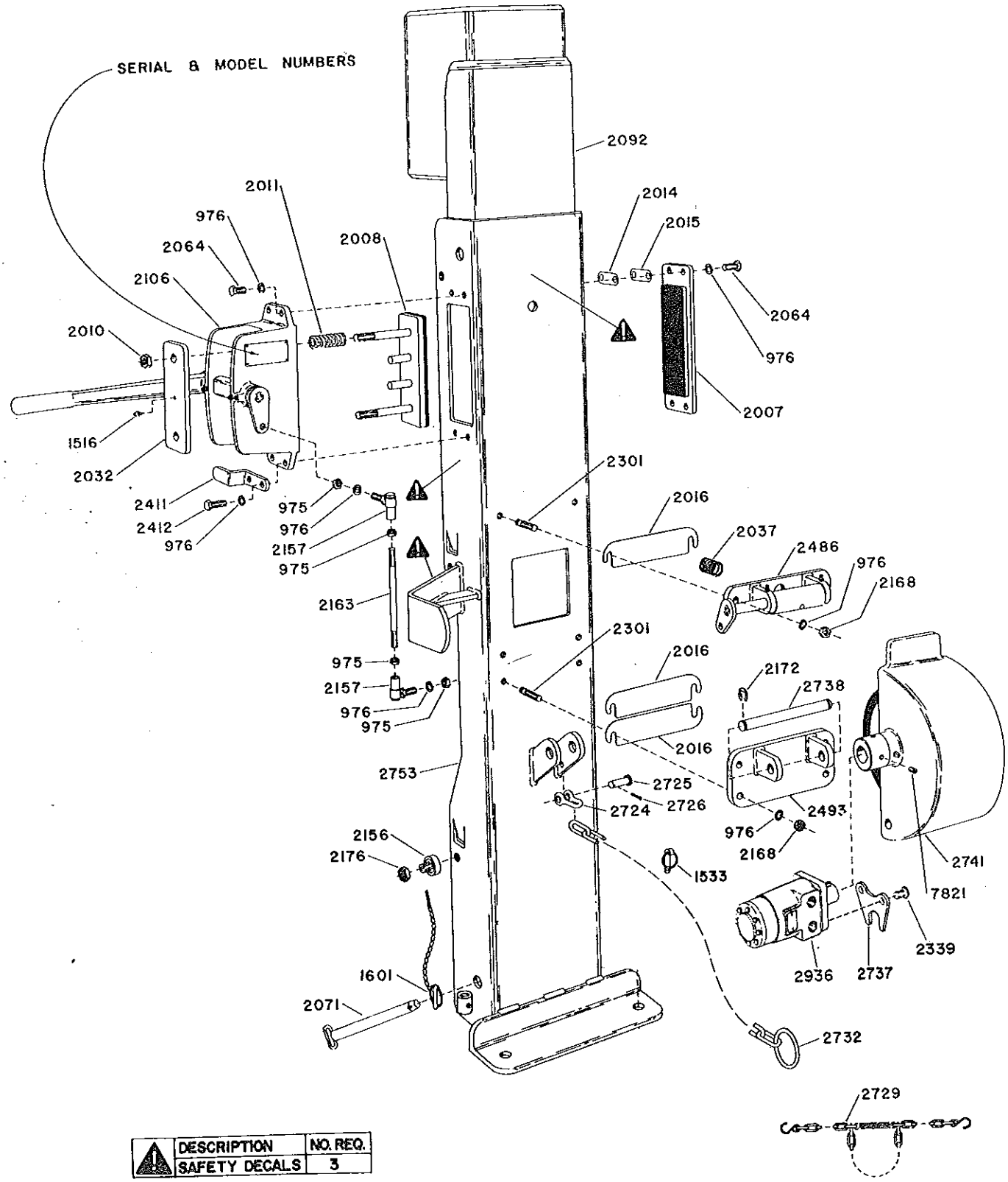
FIG. NO.	PART NO.	DESCRIPTION	NO. REQ'D
1	269	Screw (5/16-18 x .62)	7
2	1179	Bolt (5/8-11 x 1.00)	2
3	3186	Base Assembly	1
4	3187	Guard	1
5	3190	Band Assembly	1



⚠ WARNING

WHEN ATTACHING A DEMOLITION HEAD GROUP NO. 2298 OR AN AUXILIARY WEIGHT GROUP NO. 2781 TO A POST DRIVER EQUIPPED WITH A DRIVER WEIGHT GUARD KIT NO. 3191, BE SURE TO PLACE TWO NO. 4120, 5/8 WASHER-SHIMS BETWEEN THE DEMOLITION HEAD OR AUXILIARY WEIGHT AND DRIVER WEIGHT OR THE TWO REAR BOLTS. (THIS IS ILLUSTRATED BY FIGURE 1 ABOVE.) YOU MUST USE FOUR BOLTS SUPPLIED IN EACH KIT WHEN MOUNTING THE DEMOLITION HEAD OR AULILIARY WEIGHT.

DANUSER POST DRIVER
MODEL MD-H1
GENERAL ARRANGEMENT



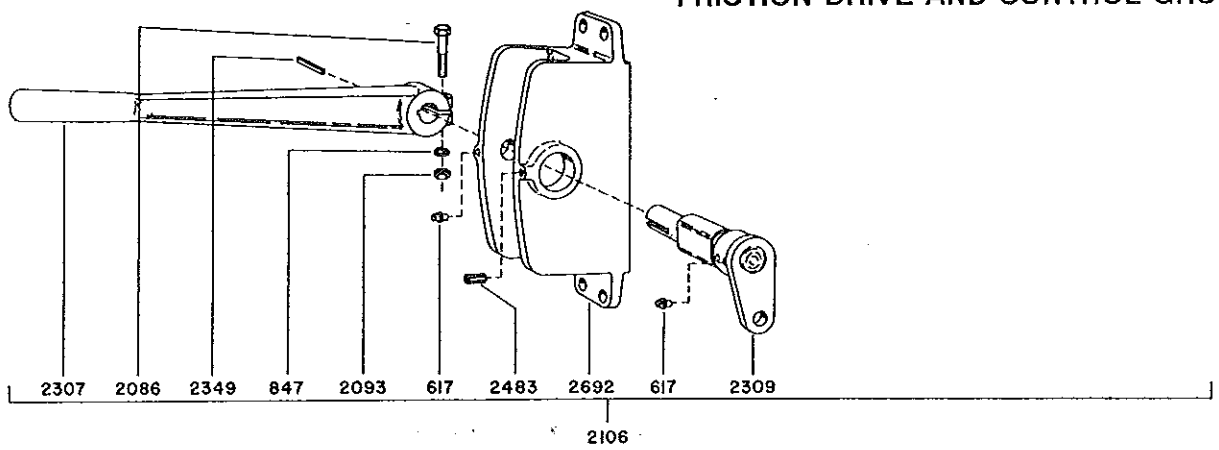
	DESCRIPTION	NO. REQ.
⚠	SAFETY DECALS	3

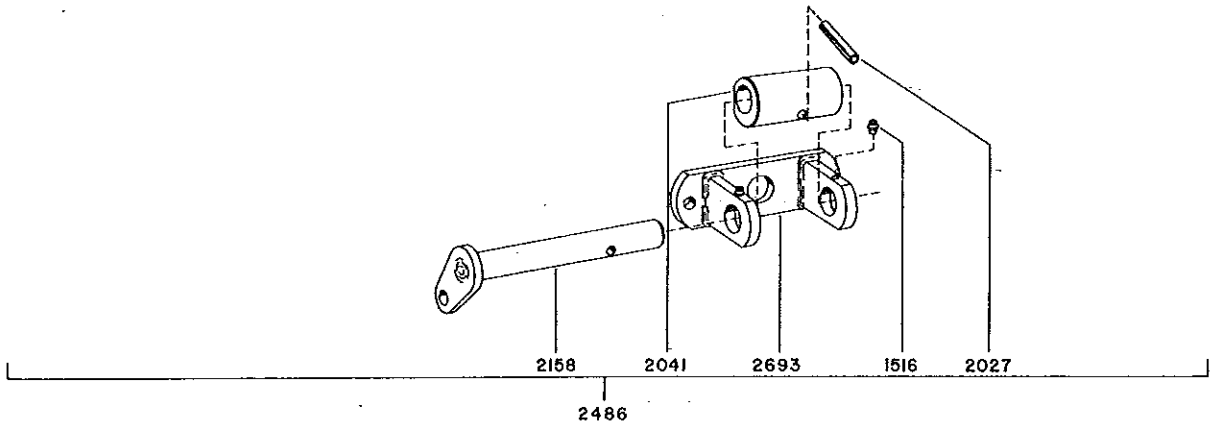
DANUSER POST DRIVER
MODEL MD-H1
GENERAL ARRANGEMENT

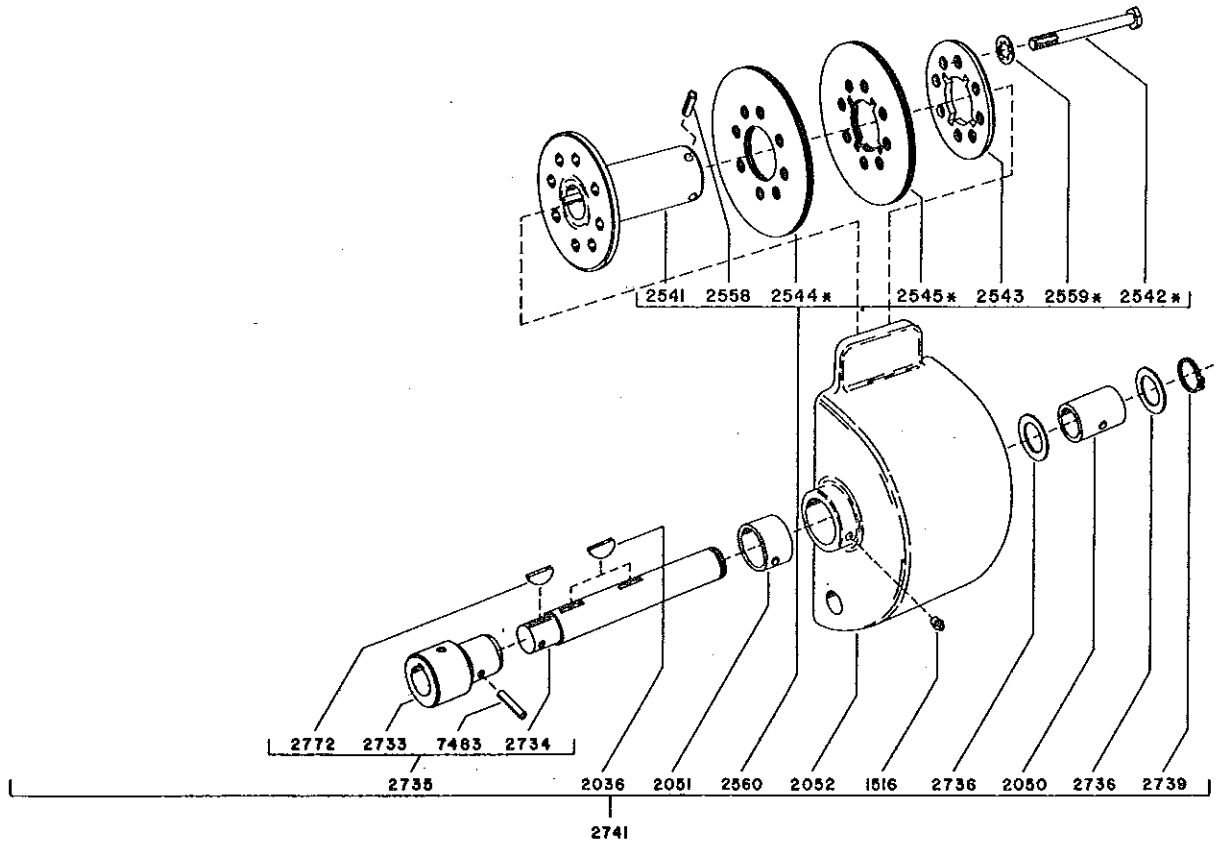
PART NO.	DESCRIPTION	NO. REQ.
975	NUT (3/8-24)	4
976	LOCKWASHER (3/8)	16
1516	FITTING	1
1533	KLIK-PIN	1
1601	KLIK-PIN	1
2007	BRAKE BLOCK	1
2008	BRAKE CONTROL BLOCK	1
2010	NUT (SELF-LOCKING 1/2 X 20)	2
2011	SPRING	4
2014	SHIM (1/16 THICK)	2
2015	SHIM (1/64 THICK)	4
2016	SHIM	21
2032	RELEASE PLATE (INCLUDES 1516 FITTING)	1
2037	SPRING	1
2064	BOLT (3/8-16 X 3/4)	6
2071	TRANSPORT PIN (7/8 X 10-1/16)	1
2092	DRIVE CHANNEL	1
2106	CONTROL HOUSING GROUP-SEE FRICTION DRIVE & CONTROL PAGE	1
2156	BEARING ASSEMBLY	6
2157	BALL JOINT	2
2163	CONTROL ROD	1
2168	NUT (3/8-16)	6
2172	RETAINING RING	2
2176	NUT (5/8-18)	6
2301	STUD (3/8-16 X 1-3/4)	6
2339	BOLT (3/8-16 X 7/8)	2
2411	STOP	1
2412	BOLT (3/8-16 X 1-1/8)	2
2486	CRADLE CAM GROUP-SEE FRICTION DRIVE & CONTROL PAGE	1
2493	CRADLE HINGE	1
2724	CLEVIS	1
2725	PIN (3/8 X 1-1/2)	1
2726	COTTER (1/8 X 3/4)	1
2729	CONTROL LEVER TIE CHAIN ASSEMBLY	1
2732	SAFETY CHAIN ASSEMBLY	1
2737	TORQUE PLATE	1
2738	HINGE PIN	1
2741	FRICTION DRIVE GROUP-SEE FRICTION DRIVE & CONTROL PAGE	1
2936	MOTOR ASSEMBLY	1
2753	GUIDE CHANNEL	1
7821	SET SCREW (SOCKET HEAD 5/8-18 X 1/2 CUP POINT)	2

IMPORTANT: When ordering parts please furnish DRIVER MODEL NUMBER, SERIAL NUMBER, PART NUMBER and DESCRIPTION.

DANUSER POST DRIVER
MODEL BMD-H - MD-H1
FRICTION DRIVE AND CONTROL GROUPS







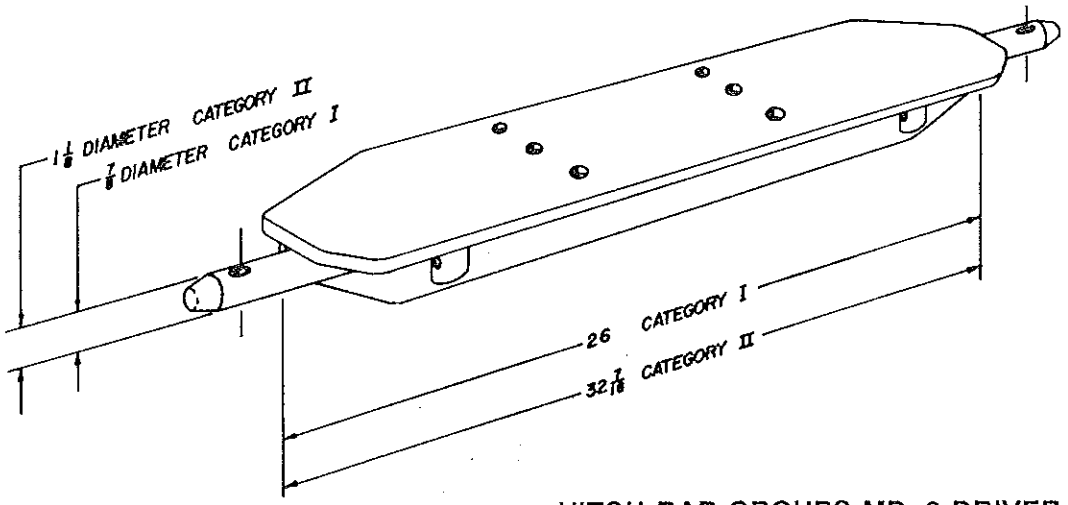
DANUSER POST DRIVER
MODEL BMD-H - MD-H1
FRICTION DRIVE AND CONTROL GROUP

PART NO.	DESCRIPTION	NO REQ.
2106	CONTROL HOUSING GROUP CONSISTS OF THE FOLLOWING:	1
617	FITTING	3
847	LOCKWASHER (5/16)	1
2086	BOLT (5/16-24 X 1-1/2)	1
2093	NUT (5/16-24)	1
2307	HANDLE	1
2309	CAMSHAFT ASSEMBLY (INCLUDES 1 NO. 617 FITTING)	1
2349	KEY (SQUARE 1/8 X 1-1/8)	1
2483	SET SCREW (ALLEN HEAD 1/4-20 X 1/2 CUP POINT)	1
2692	HOUSING (INCLUDES 2 NO. 617 FITTING)	1
2486	CRADLE CAM GROUP, CONSISTS OF THE FOLLOWING:	1
1516	FITTING	2
2027	ROLL PIN (3/16 X 1)	1
2041	CAM	1
2158	SHAFT	1
2693	SUPPORT (INCLUDES 2 NO. 1516 FITTINGS)	1
2741	FRICTION DRIVE GROUP, CONSISTS OF THE FOLLOWING:	1
1516	FITTING	2
2036	KEY (WOODRUFF 3/16 X 1)	2
2050	BUSHING	1
2051	BUSHING	1
2052	CRADLE ASSEMBLY, INCLUDES THE FOLLOWING:	1
1516	FITTING	2
2050	BUSHING	1
2051	BUSHING	1
2560	FRICTION WHEEL, CONSISTS OF THE FOLLOWING:	1
2541	HUB	1
*2542	CAP SCREW (3/8 X 4)	8
2543	END PLATE	1
*2544	RUBBER DISC	14
*2545	RUBBER DISC	1
2558	ROLL PIN (1/4 X 3/4)	4
*2559	LOCKWASHER (3/8 SHAKEPROOF)	8
2735	SHAFT ASSEMBLY, CONSISTS OF THE FOLLOWING:	1
2733	SLEEVE	1
2734	SHAFT	1
2772	KEY (WOODRUFF 1/4 X 1)	1
7483	ROLL PIN (5/16 X 1-3/8)	1
2736	WASHER	2
2739	RETAINING RING	1

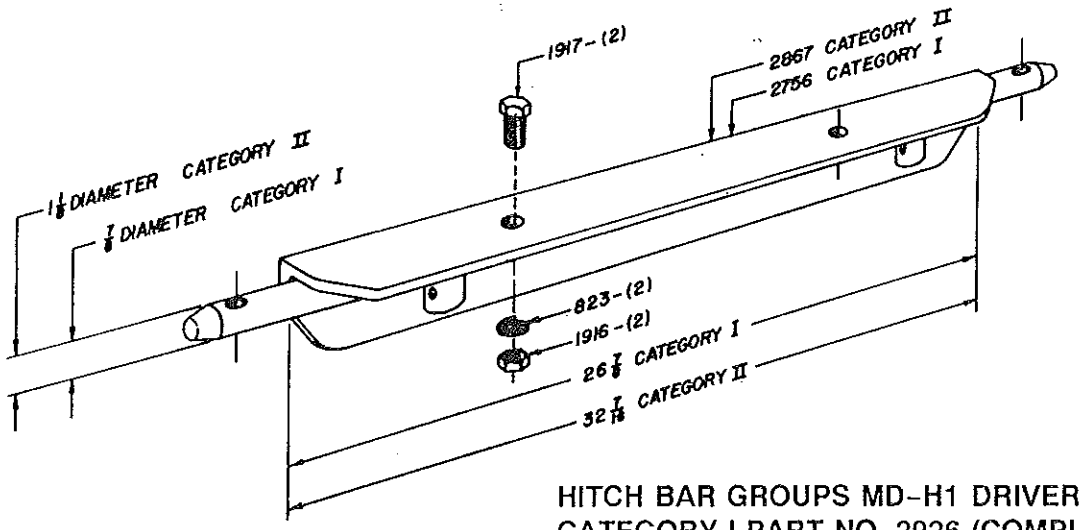
* These parts are packaged in the quantities shown as a service repair kit. Order Friction Wheel Repair Kit, Part No. 2590.

IMPORTANT: When ordering parts, please furnish DRIVER MODEL NUMBER, SERIAL NUMBER, PART NUMBER, and DESCRIPTION.

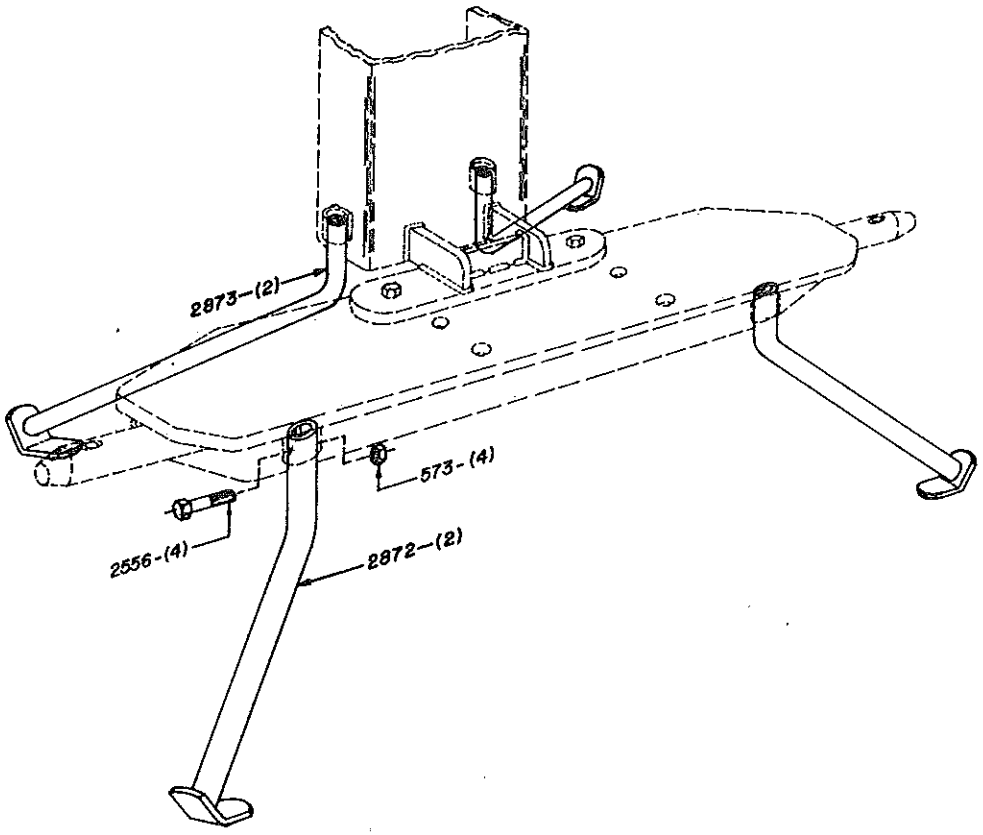
DANUSER POST DRIVER
MODEL MD-6 - MD-H1
HITCH BAR GROUPS



HITCH BAR GROUPS MD-6 DRIVER
CATEGORY I PART NO. 2274
CATEGORY II PART NO. 2865



HITCH BAR GROUPS MD-H1 DRIVER
CATEGORY I PART NO. 2926 (COMPLETE)
CATEGORY II PART NO. 2923 (COMPLETE)



LEG KIT (Optional) MD-6 and MD-HI DRIVERS
PART NO. 2876 (Complete)

INSTALLATION AND OPERATION OF STEADY-FLOW

HYDRAULIC POWERED EQUIPMENT

Machines requiring hydraulic power from the tractor hydraulic system can be divided into two groups. The largest group includes equipment that is occasionally raised, lowered, or adjusted hydraulically, but otherwise uses no hydraulic power, such as a disc or field chopper. The second group includes machines such as elevators and loaders that have either hydraulic motors or cylinders that may be expected to operate constantly for long periods.

Special care in both the installation and operation of this second group will result in smoother operation, higher efficiency, and longer life.

INSTALLATION

Make the hydraulic circuit from the tractor to the implement and back as short, large, and straight as practical. Select the following components carefully:

⚠ CAUTION

1. HOSES: Hoses should be no longer than necessary and large enough to handle the anticipated continuous flow. Generally speaking, 3/8 inch I.D. is suitable for flows up to 5 GPM, and 1/2 inch I.D. will handle up to 10 GPM. For long stationary sections, pipe or hydraulic grade tubing of adequate strength will reduce heat build-up and cost. Do not use hoses that have been pinched or otherwise damaged, and avoid routing them through areas where they could be pinched or bent sharply during operation. For adequate strength, all hoses should be 2-wire braid or stronger.

2. FITTINGS: Fittings should, if possible, be the same size or larger than the hoses and as straight as possible. Use no more fittings than necessary.

3. COUPLERS: Couplers should have the same capacity rating as the hoses and fittings. Some ball valve couplers restrict oil flow more than other types and should be avoided or selected one size larger than hoses and fittings. Use extreme care when trying to use coupler tips of one brand with bodies of another. Even though they lock and seal properly, the valves may not open properly if at all.

4. On some tractors it is desirable to return oil directly into the main pumping circuit rather than into the sump when a large volume of oil is being used. (The Danuser No. 2993 "Sump By-Pass Hose Kit" can be utilized in these applications.) If in doubt, the tractor owner's manual and dealer should be consulted.

   Some tractors are equipped with a three-way valve (for operating a single acting cylinder). Under certain conditions, these valves can be used to operate machines with hydraulic motors or double-acting cylinders. If it is only necessary for the motor to run in one direction, the valve can be connected to direct oil to the motor. Return oil must then be returned directly to the sump or pump inlet circuit.

   A three-way valve can also be used to direct oil to the inlet of one or more four-way valves (for operating double-acting cylinders) on the implement. The return oil from the four-way valve is directed to the sump or pump inlet circuit.

   The tractor dealer should be consulted before making any of these installations.

OPERATING INSTRUCTIONS

⚠ DANGER

To prevent possible personal injury or death during assembly, installation, operation, adjustment, or removal of the implement, wear gloves and safety glasses or face shield. Keep other persons a minimum of twenty-five feet (25') from any unit under power.

⚠ CAUTION

Anytime hydraulic fluid is being circulated, heat is generated regardless of whether any work is being done. This heat represents wasted fuel and additional wear on the system, and can be avoided or reduced in the following ways:

⚠ DANGER

1. Never turn the hydraulic system on to operate the implement until other persons are twenty-five feet (25') from any unit under power.

2. Neutralize the tractor control valve or stop the engine when hydraulic power is not being used.

NOTE

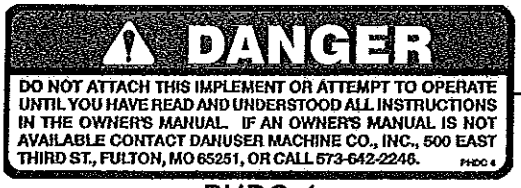
3. Operate the tractor engine no faster than necessary for adequate hydraulic power and proper engine operation. Consult the tractor owner's manual.

4. Fully open or close all directional control valves when satisfactory machine operation and safety will permit. "Feathering" these valves generates additional heat. This is particularly true on open center systems.

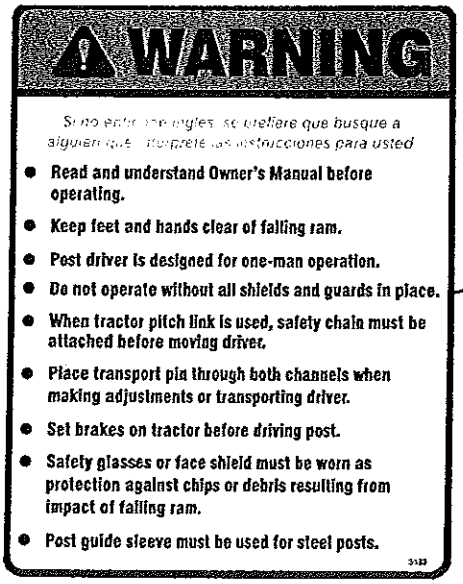
5. When tractor is equipped with a closed-center system and variable flow controls, use these controls in conjunction with engine speed (see "2" above) to control flow to the minimum needed for satisfactory and safe operation. A small flow rate due to one severe restriction will generate less heat than a large flow through many small restrictions. Consult the tractor owner's manual.

SAFETY SIGNS FOR DANUSER MDH1 DRIVER

3189



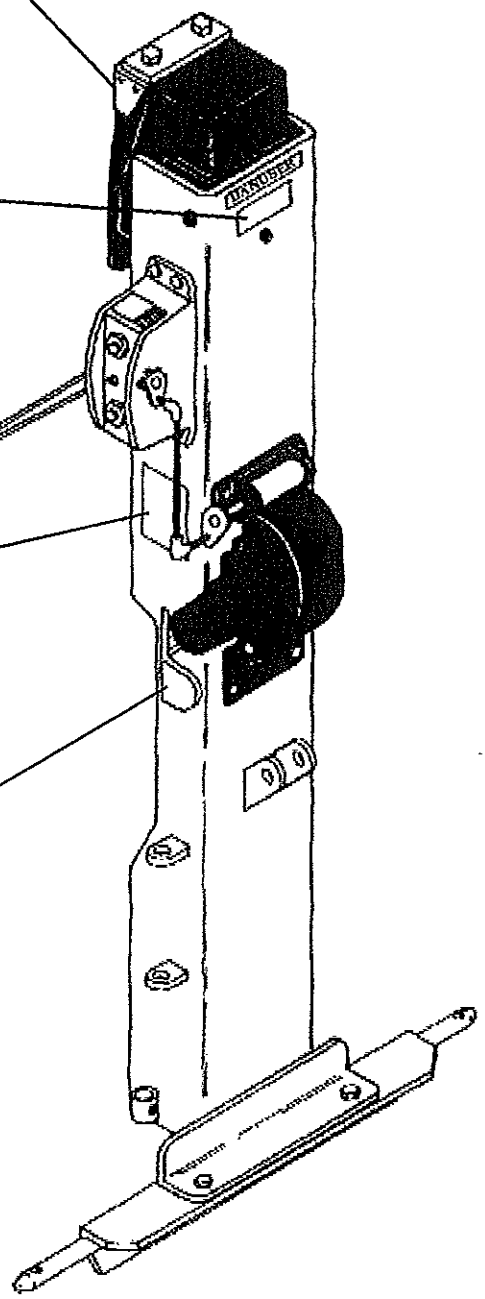
PHDC 4



3183

2561

Clean or replace all safety signs if they cannot be clearly read and understood.



The safety signs for the Danuser Model MDH1 Post Driver are located at the above referenced locations.

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