

OWNER'S MANUAL



**SPARTAN
EQUIPMENT®**

HEAVY DUTY DOZER BLADE FOR SKID STEERS UNDER 50 HORSEPOWER

EQUIPPED WITH UNIVERSAL MOUNT

BLADE:	MODEL NO.
4' DOZER BLADE	35-22900
5' DOZER BLADE	35-13010
6' DOZER BLADE	35-12510
7' DOZER BLADE	35-12610
8' DOZER BLADE	35-12910

OPTIONAL EQUIPMENT.	MODEL NO.
HYDRAULIC ANGLE KIT 4'	34-02711
BLADE EXTENSION KIT 5'	34-03110
BLADE EXTENSION KIT 6'	34-03410
BLADE EXTENSION KIT 7'	34-02510
BLADE EXTENSION KIT 8'	34-02610
BLADE EXTENSION KIT	34-04210

Spartan Equipment
Joppa, MD 21085
Phone 1-888-888-1085
www.spartanequipment.com

YOUR DOZER BLADE FEATURES

- 5 Operating Positions Manually Operated
 - Optional Blade Extension for Moving Snow
 - Optional Hydraulic Angle 30⁰ to the Right and Left
 - Quick-Tach Dozer Mounting
 - Trip Springs and Skid Shoes Included with All Blades
 - Heavy 1/2" Replaceable Cutting Edge
 - 7 Ga. Moldboard with Lock-Out Feature
- 3.

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BLADE EXTENSION KIT	34-04210

WHEN ORDERING REPAIR PARTS.
ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

- 1.The Part Number

2.The Part Description
3. The Model Number

4. The Name of Item - Dozer

Limited Warranty

All SPARTAN EQUIPMNT products have been manufactured from the very finest materials and by skilled workmen, therefore, Spartan Equipment guarantees PRODUCTS against defective workmanship and materials for a period of one year from the date of purchase.

This warranty is not a service guarantee, nor is it any assurance that the product is perfectly designed or perfectly built; neither is it an expression of any belief that the product cannot be improved. Further, this warranty is not a guarantee against hazards such as wear, tear, misuse or misfortune nor against problems arising from incorrect set-up or servicing and is not a guarantee that the performance will meet the expectations of the purchaser.

This warranty is void should the product be repaired or modified in any way not authorized by Spartan Equipment.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose other than the extent permitted by law any and all implied warranties are excluded. This is the exclusive remedy, and liability for consequential damages under any and all warranties are excluded to the extent exclusion is permitted by law.

Components such as pumps, winches, hoses, etc., will carry only their respective manufacturer's warranty. This warranty does not cover any merchandise which, in the opinion of the company, has been subject to negligent handling, misuse, or accident.

Warranty claims on components will not be approved and credit issued until defective items are returned to the factory (PREPAID) and our respective suppliers have approved our Warranty Claims. When credit is received Spartan Equipment we will issue credit in an amount equal to that received from the component supplier. Spartan cannot warrant any merchandise, which, in the opinion of the company, has been subjected to negligent handling, misuse, or accident. All Warranty Claims must be submitted in writing. Written approval from the company must be obtained before any merchandise and warranty parts are returned to the factory.

Spartan Equipment reserves the right to make changes, improvements, and modifications at any time without incurring the Obligation to make such changes, improvements, and modifications on any products sold previously.

SPARTAN EQUIPMENT

Joppa, MD 21085

1.888.888.1085

SAFETY PRECAUTIONS

Most equipment accidents can be avoided by following simple safety precautions. These precautions, if followed at all times, will help you operate your dozer safely.

1. Do not attempt to start the loader engine while standing beside the loader. Always start the engine while sitting in the loader operator's seat.
2. Always stop the engine when leaving the loader.
3. Do not allow anyone but the operator to ride on the loader-dozer.
4. Do not make mechanical adjustments while the unit is in motion, the blade is raised, or the engine is running.
5. Do not attempt to repair or tighten hydraulic hoses when under pressure, when the loader engine is running, or when the blade is raised.
6. Do not dismount from the loader and leave the dozer blade raised.
7. Do not get under the blade when the dozer blade is raised.
8. When parking, make sure the parking brakes are set and the dozer blade is fully lowered.

9. Exercise extreme caution when operating the loader with the dozer blade on the sides of a hill.

Inspecting the Hydraulic System Hoses

WARNING Escaping fluid under pressure can have sufficient force to penetrate the skin and cause serious injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, not your hands, to search for suspected leaks. Be sure to relieve all pressure before disconnecting lines. Be sure all connections are tight and that all lines and hoses are not damaged before applying pressure to the system.

When tightening connections, always use two wrenches.

IMPORTANT: Do not over-tighten the fittings. Make them just tight enough to prevent leaks.

NEVER use teflon tape on pipe thread fittings. Always use a paste type sealer.

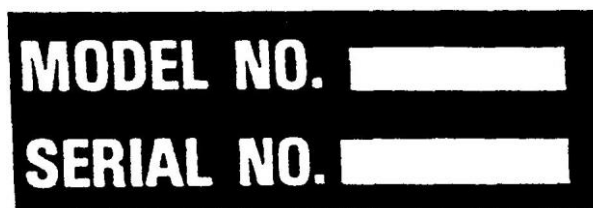
Whenever you see this symbol



it means:

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Serial Number Plate



GENERAL INFORMATION

The dozer blade is designed for quick, easy installation on the skid steer. Trip springs, blade trip lock out, and skid shoes are standard equipment with each blade.

CONTROLS

The lift and optional hydraulic angle are operated by the controls located on the loader.

NOTE: REMOVE MANUAL ANGLE PIN WHEN HYDRAULIC ANGLE OPTION IS USED.

OPERATION

Operation of the dozer blade will depend greatly on the type of work it is used to do, the location and numerous operational factors. There are several basic points, however, which will aid to better dozer blade operation:

- (1) Blades are designed for moving snow and loose dirt. Do not abuse blade by prying rocks or stumps with high impact loads.
- (2) Skid shoes when used for snow removal, should be set properly to avoid gouging of the surface material.
- (3) Use the unit wisely. Do not overload the loader dozer blade capacity.
- (4) Use the float position to remove material without moving the actual surface material of the area.
- (5) For back blading, always use the float position on the control valve.
- (6) Always use the float position when moving snow.
- (7) Do not operate with blade locked when moving snow. Remove 1/2-13 x 1-1/2 hex hd. capscrews lockwashers and nuts. (lock bolts). Blade must be allowed to trip.

LUBRICATION AND MAINTENANCE

The dozer blade is designed for the minimum amount of maintenance. Listed below are points that should be checked occasionally.

CHECK TORQUE ON ALL BOLTS AND CHECK ENTIRE UNIT OVER THOROUGHLY AFTER FIRST TEN HOURS OF OPERATION.

- (1) Repair any hydraulic oil leak promptly to avoid damage to the system and loss of hydraulic oil.
- (2) Check the level of hydraulic oil in the loader daily and add, if necessary.

- (3) Replace the hydraulic hoses immediately, if they are cut or damaged.
- (4) Check all mounting and assembly bolts periodically and tighten as necessary.

DOZER BLADE REMOVAL

- (1) Disconnect the hydraulic hoses for the optional hydraulic angle cylinder if the unit is so equipped.
- (2) Unlock the handles for the coupler and remove the dozer mount from the loader in the same manner as removing the bucket.

BLADE ASSEMBLY AND MOUNTING INSTRUCTIONS

ATTACH THE MOUNT TO THE LOADER

- (1) Attach the mount to the loader coupler frame. Lock the mount on to the coupler frame with the locking handles. Make sure the locking wedges are locked into the mount. SEE FIG. 1.

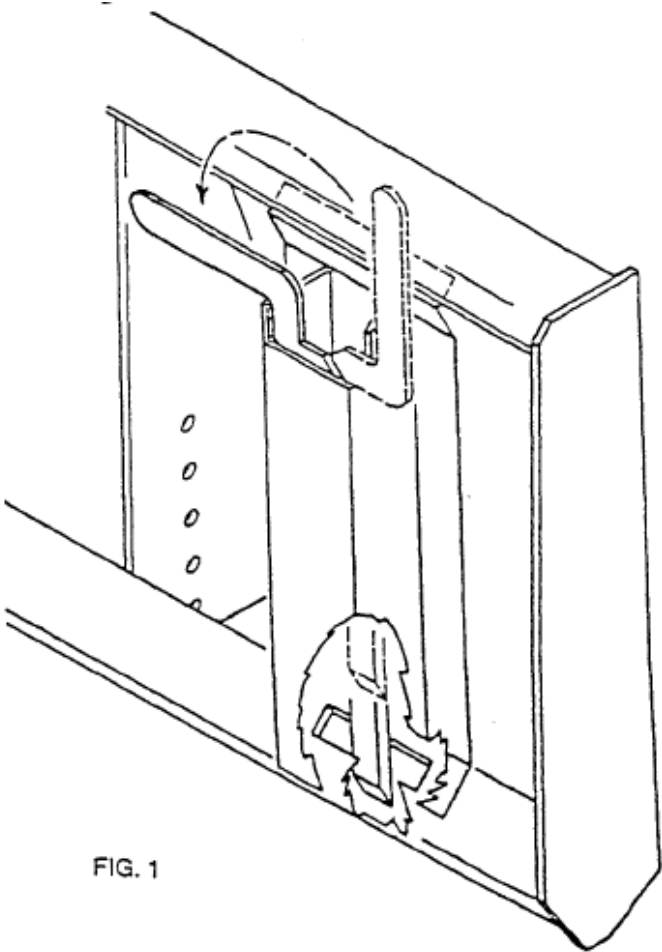


FIG. 1

ATTACH THE SUB-FRAME TO THE MOUNT ^{5.}

(1) Attach the sub-frame to the mount. Use (4) 5/8-11 x 1³/₄ hex hd. capscrews, nuts and lockwashers on each side. The mount and sub-frame are made to adjust for mounting on the Skid Steer loaders. Use the upper set of holes when mounting the dozer for snow removal. Use the lower holes when mounting the dozer for moving material that requires more below grade cut. As shown in FIG. 2.

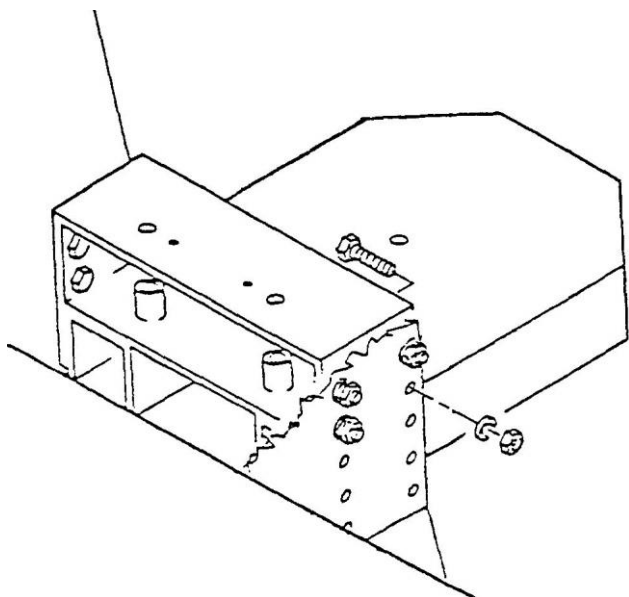


FIG.2

(2) Align the sub-frame with the mount and tighten the (8) capscrews that secure the sub-frame to the mount.

ATTACH THE PIVOT TO THE SUB-FRAME (1)

Raise the front of the sub-frame approximately 6"-8" and place a block under the mount. This will make it easier to attach the pivot.

(2) Slide the pivot onto the front of the sub-frame and secure with a 1x6" clevis pin and a 3/16 x 11/2. cotter pin. As shown in FIG. 3.

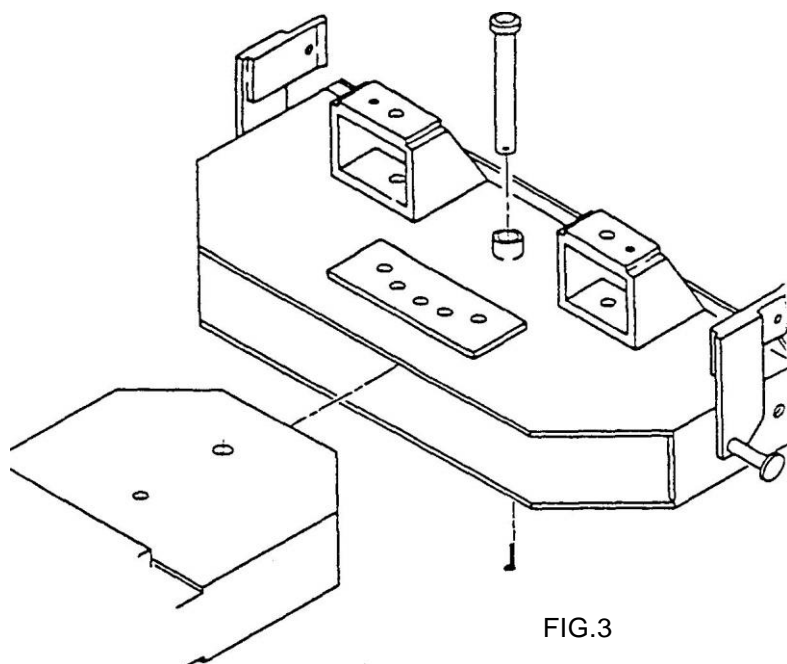


FIG.3

ATTACH THE BLADE TO THE PIVOT

(1) Attach the blade to the pivot using (2) 3/4-10 x 3" hex hd. capscrews, bushings, flatwashers, lockwashers and nuts as shown in FIG. 4. Tighten securely.

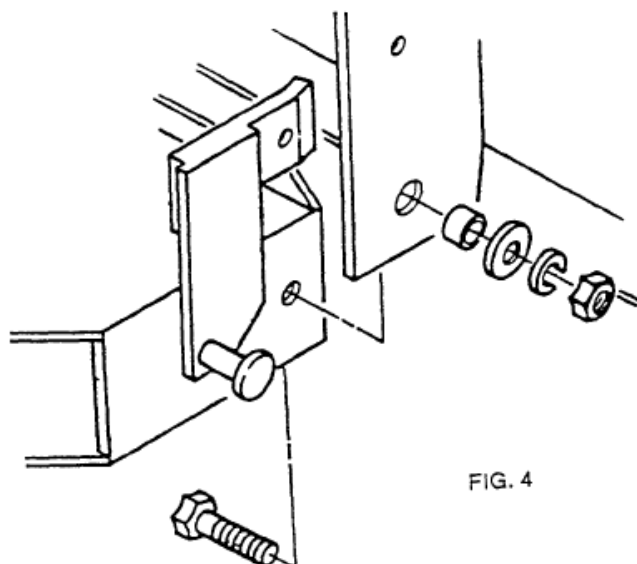


FIG. 4

ATTACH THE TRIP SPRINGS

- (1) Hook one end of each spring on the spring retainers located on each side of the pivot assembly.
- (2) Thread a 1/2" nut unto each eyebolt approximately 1" down from the end.
- (3) Hook the eyebolts to the other end of the springs. Hold the blade in the upright position against the stops and insert one eyebolt through the hole in the spring retainer at the top of the blade. Secure the eyebolt to the spring retainer with, a 1/2" nut. Attach the other springs to the retainer in the same manner. See FIG. 5.

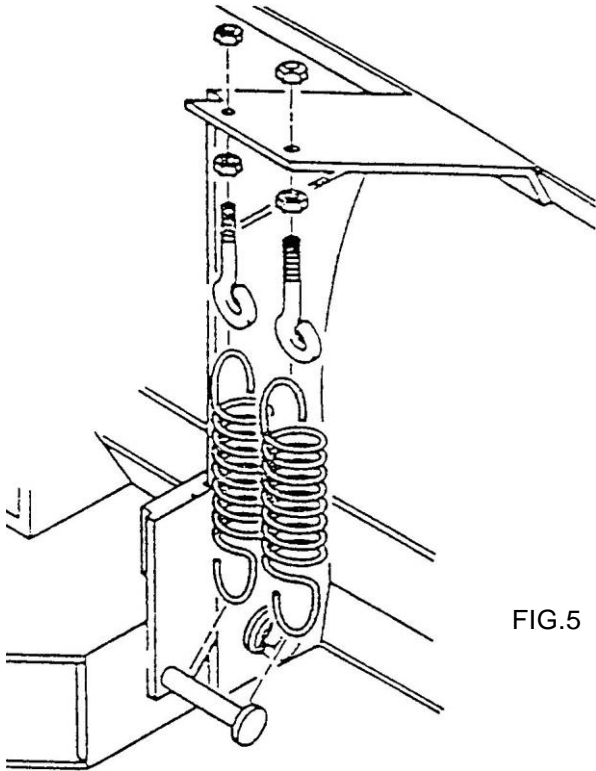


FIG.5

- (4) Adjust the spring tension according to the type of material to be moved (moving snow requires less tension than dirt, etc.) and lock the nuts.
- (5) For moving dirt and material other than snow the blade can be locked. Use (2) 1/2-13 x 1-1/2 hex hd. capscrews, lockwashers and nuts.
- (6) **Do not operate with blade locked when moving snow. Remove 1/2-13 x 1-1/2: hex hd. capscrews lockwashers and nuts. (lock bolts). Blade must be allowed to trip.**

ASSEMBLE AND ATTACH (OPTIONAL) HYDRAULIC ANGLE KIT

- (1) Insert a 1/4 x 45° steel st. elbow into the rear ports on both cylinders. Use pipe compound on the threads. See FIG. 6.

(2) Insert a 1/4" close nipple and hex fitting into the front ports on both cylinders. Use pipe compound on the threads. See FIG. 6. NOTE: Tighten the hex fittings and nipples very tightly into the cylinders.

(3) Attach the rear of the angle cylinders to the skid steer frame and the rod end of the angle cylinders to the pivot assembly. Use a pin weldment and secure with a 3/8-16 x 1-1/4" hex hd. capscrew, lockwasher, and nut. Both cylinders and both ends. See FIG. 6.

(4) Connect the (2) 1/4 x 10" hydraulic hoses to the angle cylinders as shown in FIG. 6. Use pipe compound on the threads.

(5) Connect the (2) 1/4 x 66 hydraulic hoses to the hex fittings on the angle cylinders. Use pipe compound on the threads. See FIG. 6. See note below.

(6) Attach a 1/2" quick coupler-male on one hose and a 1/2" quick coupler-female on the other hose using a 3/8-1/2" hex reducing bushing and a 3/8 x 90° steel st. elbow on each hose. Use pipe compound on the threads. As shown in FIG.6.

NOTE: The quick couplers are available from the skid steer dealer.

- (7) Connect the hoses from the angle cylinders to the remote hydraulic ports on the loader frame. (Do not connect them to the high flow hydraulic ports)

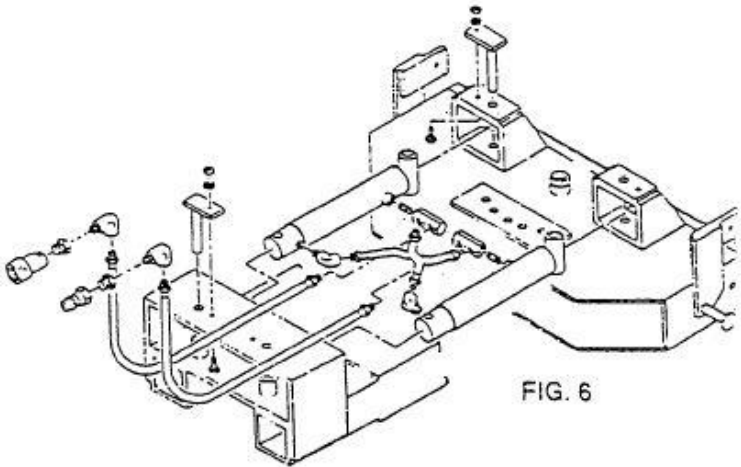


FIG. 6

NOTE : Angle the pivot assembly maximum to the right and left. Check the clearance between the ends of the hex fittings. Check the clearance between the ends of the hydraulic hose. -Adjust if required for clearance.

MANUAL ANGLE PIN

- (1) Use the manual angle pin only on units not equipped with the hydraulic angle kit. The pin locks the blade in anyone of five positions from left to right. See FIG. 7.

8.
(DO NOT USE THE MANUAL ANGLE PIN ON
UNITS WHEN HYDRAULIC ANGLE KIT IS USED.)

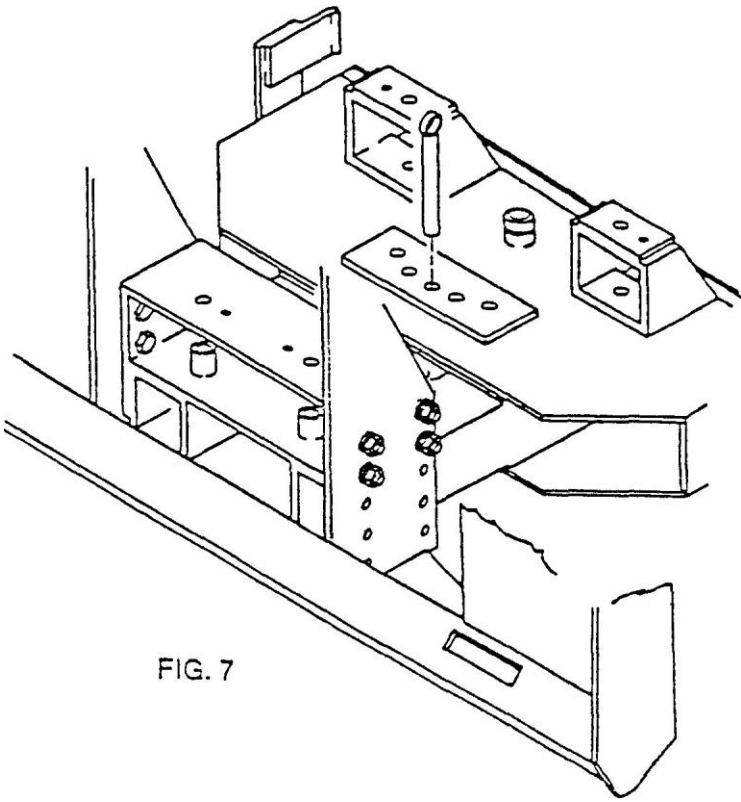


FIG. 7

ATTACH THE SKID SHOES

- (1) Assemble the skid shoe washers and spacers on skid shoe shaft. Arrange the washers and spacers below the skid shoe holder on the rear of the blade to allow for the desired blade clearance. Secure the skid shoes to the holders with the LYNCH PIN on both sides as shown in FIG. 8.

ATTACH (OPTIONAL) BLADE EXTENSION

- (1) Attach the blade extension to the top of the blade.
Use a 1/2-13 x 1-1/4 hex hd. capscrew, nut, lock-washers and (2) flatwashers in each hole as shown in FIG. 9. Tighten securely.

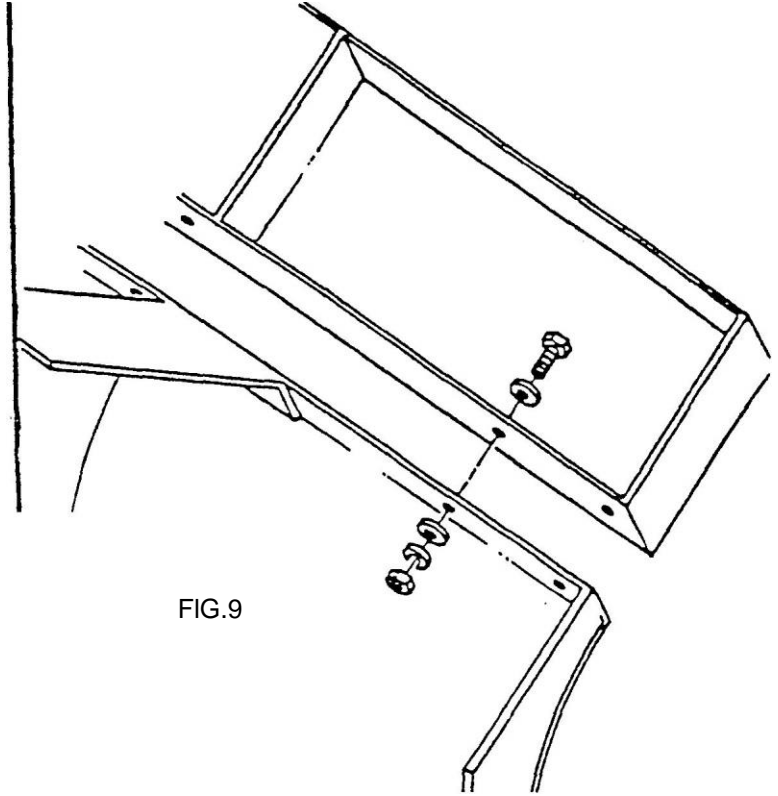


FIG.9

LUBRICATION AND MAINTENANCE

The dozer blade is designed for a minimum amount of maintenance. Listed below are items that must be checked and serviced.

- (1) Check torque on all bolts and check entire unit over thoroughly after first hour, of operation and periodically thereafter.
- (2) Repair any hydraulic oil leak promptly to avoid damage to the hydraulic system and loss of hydraulic oil.
- (3) Check the level of hydraulic oil in the Loader daily and add oil if necessary.
- (4) Replace the hydraulic hoses and fittings immediately if they are cut or damaged.
- (5) Check all mounting and assembly bolts periodically and tighten if necessary.
- (6) Check all parts and pins in the blade.
Repair or replace any damaged or worn parts.

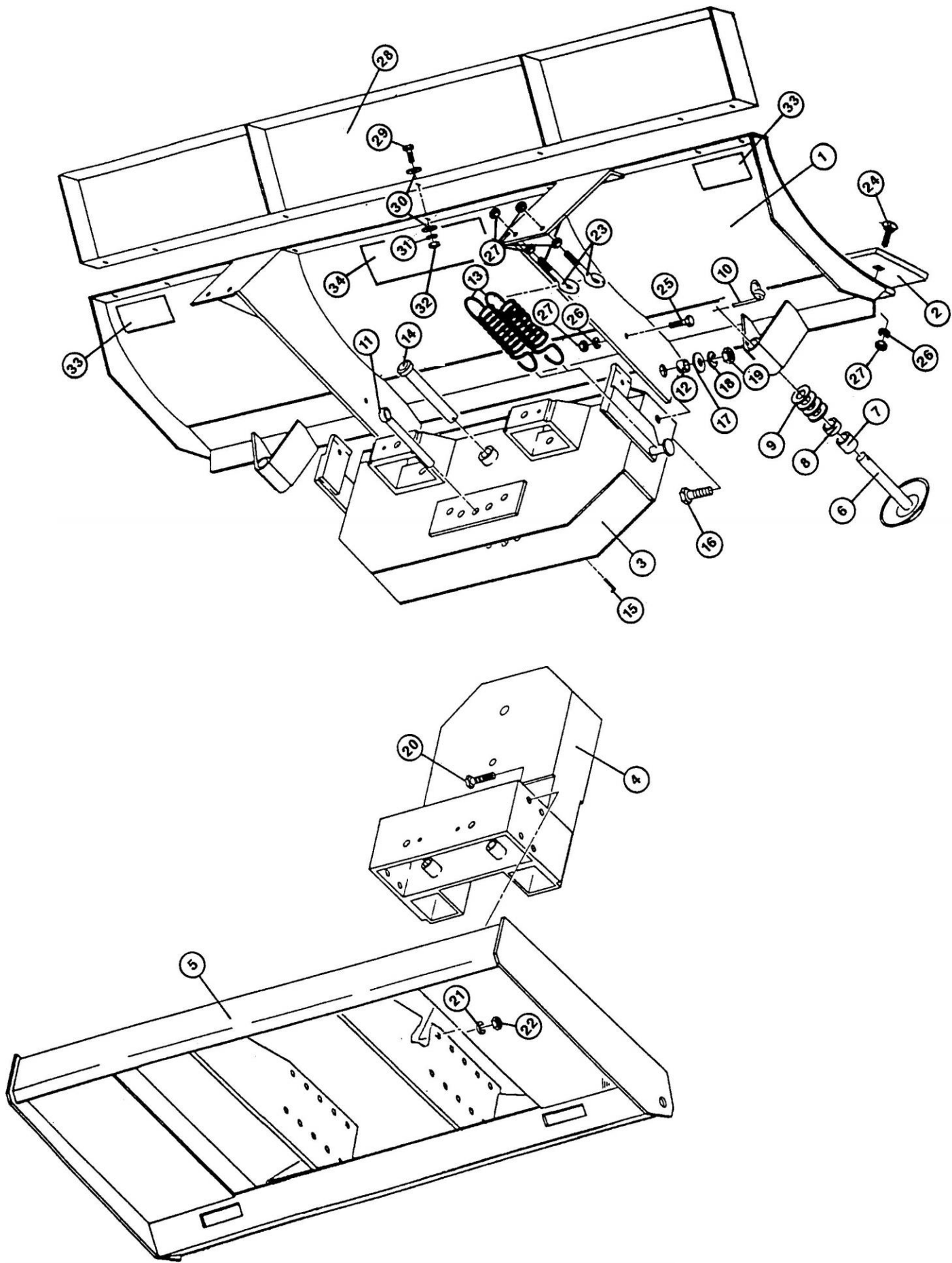
DOZER BLADE REMOVAL

- (1) Lower the blade to the floor and place a 4-6" block under the mount
- (2) Disconnect the hydraulic hoses.
- (3) Unlock the handles for the mount and remove the dozer mount from the Loader in the same manner as removing the bucket.

STORAGE

- (1) Check the hydraulic hoses for damage and replace as necessary. Check all bolts and pins for wear and replace if necessary. Check the cutting edge for wear and replace as required.
- (2) Store in a dry, clean storage area.
- (3) Protect the exposed rods on the blade cylinders with grease or like material to prevent rust.

BLADE ASSEMBLY AND REPAIR PARTS



REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	4' BLADE w/ CUTTING EDGE	18469	1
	5' BLADE W/CUTTING EDGE	15112	1
	6' BLADE W/CUTTING EDGE	14748	1
	7' BLADE W/CUTTING EDGE	14777	1
	8' BLADE W/CUTTING EDGE	15259	1
2	4' CUTTING EDGE (1/2" x 6" NO BEVEL - REVERSIBLE)	18484	1
	5' CUTTING EDGE - 1/2 x 6 NO BEVEL, REVERSIBLE	18301	1
	6' CUTTING EDGE - 1/2 x 6 NO BEVEL, REVERSIBLE	18302	1
	7' CUTTING EDGE - 1/2 x 6 NO BEVEL, REVERSIBLE	18134	1
	8' CUTTING EDGE - 1/2 x 6 NO BEVEL, REVERSIBLE	18303	1
3	PIVOT	14759	1
4	SUBFRAME	14770	1
5	MOUNT	14762	1
6	SKID SHOE	10229	2
7	BUSHING- LONG	10272-3	2
8	BUSHING- SHORT	10272-1	2
9	1" FLATWASHER	100237	8
10	LYNCH PIN	101307	2
11	MANUAL ANGLE PIN	13204	1
12	BUSHING	13210	2
13	TRIP SPRING	100246	4
14	1 x 6 CLEVIS PIN	101131	1
15	3/16 x 1-1/2 COTTER PIN	100580	1
16	3/4-10 x 3 HEX HEAD CAP SCREW	100455	2
17	3/4 FLATWASHER	100252	2
18	3/4 LOCKWASHER	100170	2
19	3/4-10 HEX NUT	100169	2
20	5/8-11 x 1-3/4 HEX HEAD CAP SCREW	100442	8
21	5/8 LOCKWASHER	100077	8
22	5/8-11 HEX NUT	100239	8
23	1/2-13 x 6 EYEBOLT	100249	4
24	1/2-13 x 2-1/4 PLOW BOLT	101938	* 5
25	1/2-13 x 1-1/2 HEX HEAD CAP SCREW	100057	2
26	1/2 LOCKWASHER	100076	* 7
27	1/2-13 HEX NUT	100087	* 15
28	4' BLADE EXTENSION (OPTIONAL)	18477	** 1
	5' BLADE EXTENSION (OPTIONAL)	15121	** 1
	6' BLADE EXTENSION (OPTIONAL)	14784	** 1
	7' BLADE EXTENSION (OPTIONAL)	14789	** 1
	8' BLADE EXTENSION (OPTIONAL)	15265	** 1
29	1/2-13 x 1-1/4 HEX HEAD CAP SCREW (OPTIONAL)	100056	** 7
30	1/2 FLATWASHER (OPTIONAL)	100081	** 14
31	1/2 LOCKWASHER (OPTIONAL)	100076	** 7
32	1/2-13 HEX NUT (OPTIONAL)	100087	** 7
33	DECAL-WARNING	101211	2
34	DECAL	101091	1

*NUMBER REQUIRED IS SHOWN FOR 5' UNIT—

6' UNIT REQUIRES 6 OF REF. 24, 8 OF REF. 26 AND 16 OF REF. 27

7' UNIT REQUIRES 7 OF REF. 24, 9 OF REF. 26 AND 17 OF REF. 27

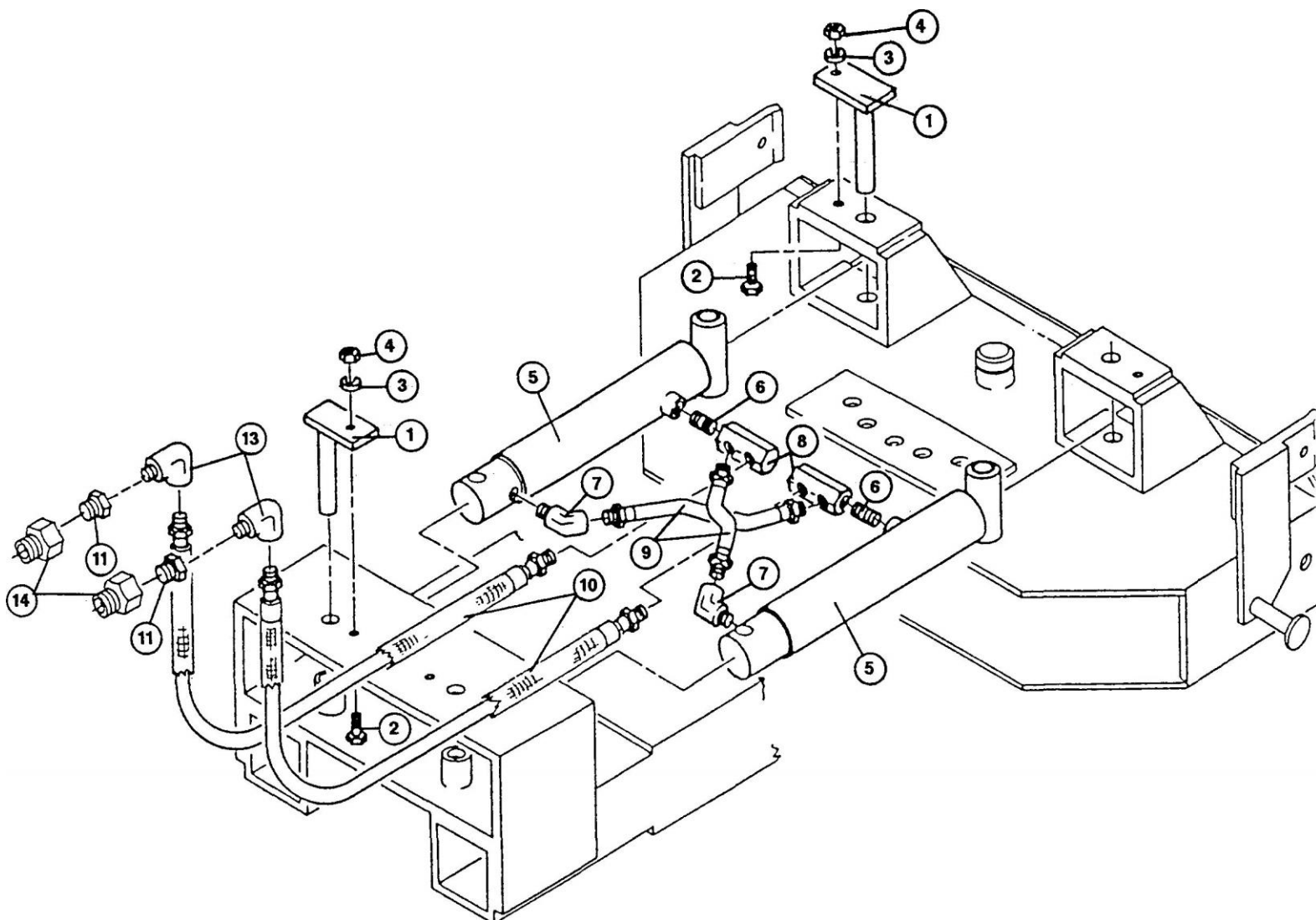
8' UNIT REQUIRES 8 OF REF. 24, 10 OF REF. 26 AND 18 OF REF. 27

**NUMBER REQUIRED IS SHOWN FOR 5' UNIT—

6' UNIT REQUIRES 8 OF REF. 29, 16 OF REF. 30, 8 OF REF. 31 AND 6 OF REF. 32

7' UNIT REQUIRES 9 OF REF. 29, 18 OF REF. 30, 9 OF REF. 31 AND 9 OF REF. 32

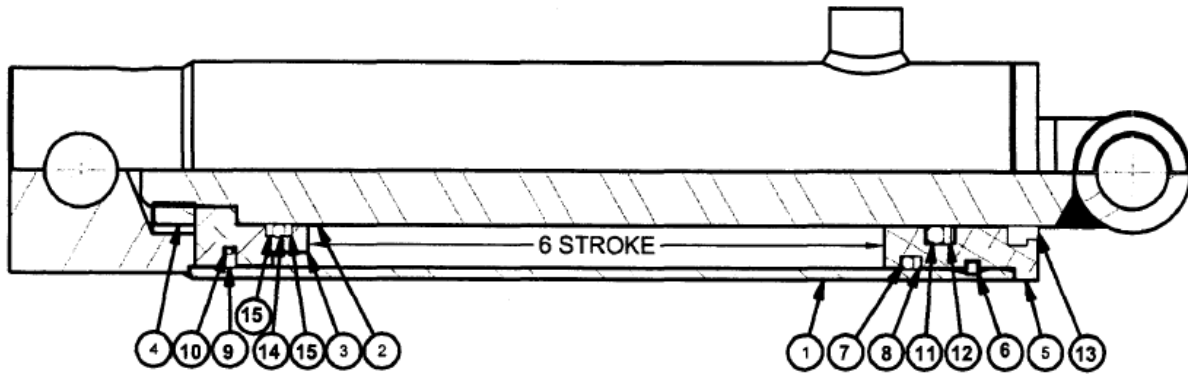
8' UNIT REQUIRES 10 OF REF. 29, 20 OF REF. 30, 10 OF REF. 31 AND 10 OF REF. 32



HYDRAULICS ASSEMBLY AND REPAIR PARTS

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	CYLINDER PIN	13207	4
2	3/8-16 X 1 1/4 HEX HD. CAPSCREW	100046	4
3	3/8 LOCKWASHER	100074	4
4	3/8-16 HEX NUT	100085	4
5	CYLINDER	102207	2
6	1/4 CLOSE NIPPLE	100104	2
7	1/4 X 45° STEEL ST. ELBOW	100588	2
8	HEX FITTING	12806	2
9	1/4 X 10 HYD. HOSE 1/4M-1/4MS	100976	2
10	1/4 X 66 HYD. HOSE 3/8M-1/4MS	101232	2
11	3/8-1/2 HEX RED. BUSHING	100200	2
12	NYLON TIE (NOT SHOWN)	100257	4
13	3/8 X 90° STEEL ST. ELBOW	100540	2
14	1/2-14 NPTF X 1 1/16-12 ORBM ADAPTOR	102436	2

HYDRAULIC CYLINDER ASSEMBLY AND REPAIR PARTS



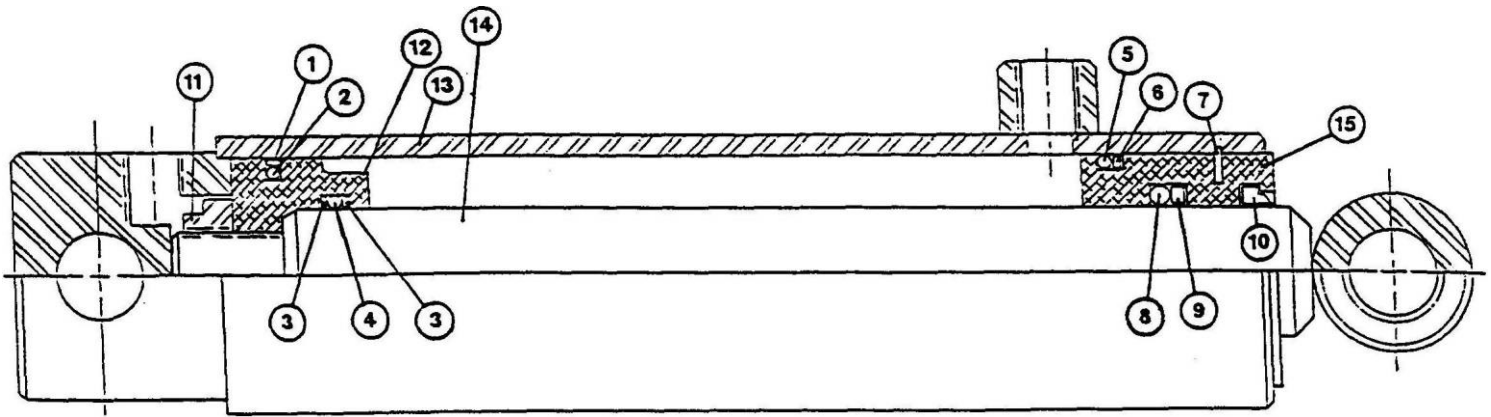
CYLINDER PIN 102207

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NO. REQUIRED
1	2" MD BARREL ASSY	103313	1
2	1 1/8" SHAFT ASSY	102210	1
3	2" MD PISTON 3/4" SHAFT (SLP) SP	103275	1
4	3/4" LOCK JAM NUT	102208	1
5	2" HEAD 1 1/8" SHAFT (ORG/BAK)	103274	1
6	1/8" KEYSTOCK	103156	1
7	O-RING		1
8	BACKUP		1
9	SLIPPER SEAL		1
10	O-RING		1
11	O-RING		1
12	BACKUP		1
13	DUST SEAL		1
14	O-RING		1
15	BACKUP		2

ITEMS 7 THRU 15 IN QUANTITIES SHOWN
ARE INCLUDED IN SEAL KIT PIN 102189
THESE ITEMS ARE NOT AVAILABLE SEPARATELY.

CYLINDER DIA.	2
ROD DIA.	1 1/8
STROKE	6
RETRACTED LENGTH	11
EXTENDED LENGTH	17

HYDRAULIC CYLINDER ASSEMBLY AND REPAIR PARTS



CYLINDER PIN 102207

REFERENCE NUMBER	DESCRIPTION	PART NUMBER	NUMBER REQUIRED
1	PISTON RING	102190	1
2	O-RING	102191	1
3	BACK-UP	102192	2
4	O-RING	102193	1
5	O-RING	102194	1
6	BACK-UP	102195	1
7	SNAP RING	102196	1
8	O-RING	102197	1
9	BACK-UP	102198	1
10	WIPER	102199	1
11	3/4-16 LOCKNUT	102208	1
12	PISTON	102200	1
13	BARREL	102209	1
14	ROD	102210	1
15	HEADGLAND	102203	1

ITEMS 1 THRU 10 . IN QUANTITIES SHOWN
ARE INCLUDED IN SEAL KIT PIN 102189.
THESE ITEMS ARE NOT AVAILABLE SEPARATELY.

CYLINDER DIA. 2
ROD DIA. 1 1/8
STROKE 6
RETRACTED LENGTH 11
EXTENDED LENGTH 17

NOTE:
CYLINDER CHANGE 2-18-2010