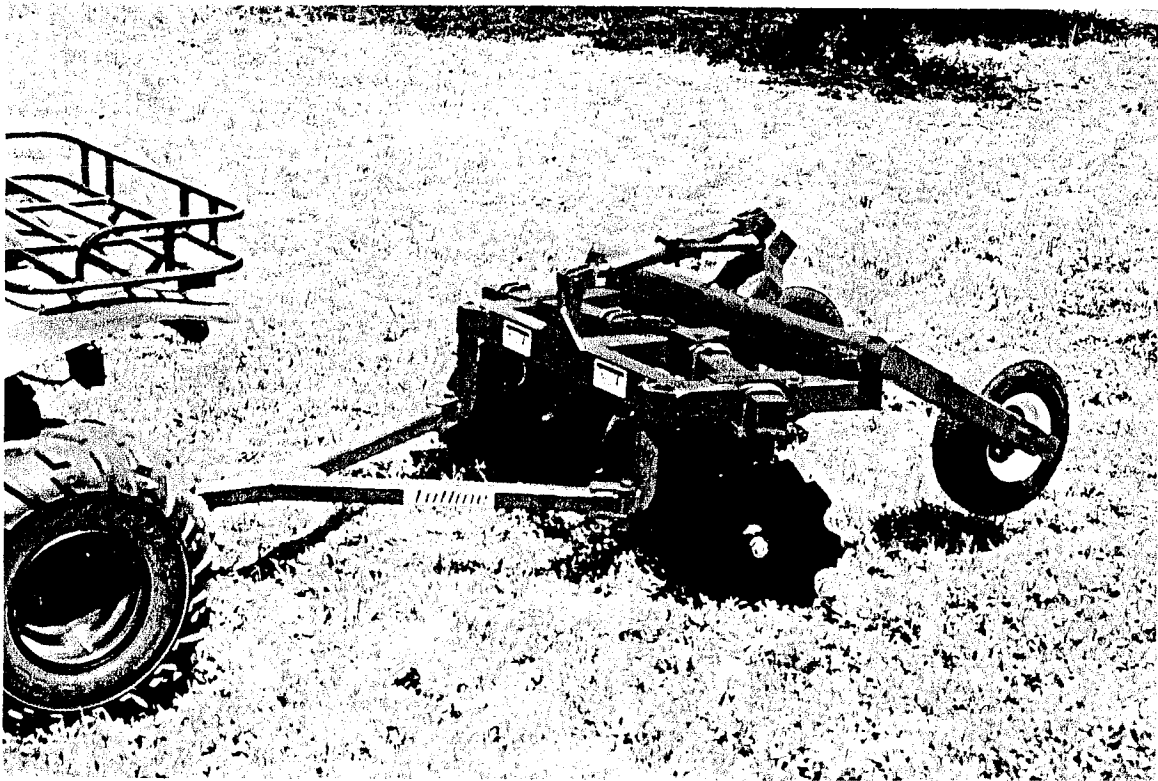


ATVD SERIES

ALL TERRAIN VEHICLE DISC HARROW

BY TUFLINE

SAFETY MANUAL & ASSEMBLY & OPERATING INSTRUCTIONS



MONROE-TUFLINE MFG. CO., INC.
P.O. BOX 186 / 2219 TUFLINE LANE
COLUMBUS, MS 39703

INTRODUCTION

We are pleased that you have chosen a TUFLINE product. To assist you in the assembly and safe operation of your unit, we are providing this booklet. We urge you to read this booklet and thoroughly familiarize yourself with all aspects of safety, assembly, and operation. **NOTE:** All information contained in this booklet is general in nature and to be used for instructional purposes only. Actual appearance, material, and specifications may vary somewhat depending on the specific model being assembled or adjusted.

All references made to the left or right in this booklet are determined by standing at the rear of the machine and facing the direction of travel.

****DISCLAIMER****

Any modifications to this product without the specific permission of TUFLINE are not allowed. Unauthorized modifications beyond the original factory specifications could cause damage to the unit and void the warranty.

****LIMITED WARRANTY****

Monroe-Tuflin Mfg. Co. Inc., the manufacturer, warrants only to the original purchaser of new TUFLINE equipment that they are free of defects in material and workmanship under normal use and service. This warranty is applicable for one year from date of purchase if for personal use; 90 days for commercial or rental purposes. This warranty does not apply to any equipment which has been improperly assembled or which has been subjected to abuse, negligence, normal wear and tear, modifications, tampering or failure to follow operating instructions, or which has been used for a purpose for which the product is not designed. This warranty does not cover any parts not manufactured by Monroe-Tuflin Mfg. Co., Inc.

Claims shall be made to the dealer who originally sold the equipment. Warranty coverage is not valid unless the owner registration card below is completed and returned. All claims must be submitted within 30 days of equipment failure and faulted parts or equipment are subject for return to TUFLINE at TUFLINE'S expense and discretion. Monroe-Tuflin reserves the right to make improvements and/or changes in specifications of the product at any time without notice or obligation to modify previously manufactured unit.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

Please fill out the registration card below and mail it to: MONROE-TUFLINE MFG. CO., INC., P. O. Box 186, Columbus, MS 39703 - Attn; Owner Registration

OWNER REGISTRATION

NAME _____ ADDRESS/CITY/ST _____
DEALER NAME _____ CITY/STATE _____
DATE OF PURCHASE _____ MODEL NO. _____ SERIAL # _____
COMMENTS _____

GENERAL SAFETY INSTRUCTIONS FOR TUFLINES ATVD SERIES DISC

HITCHING:



Before hitching be sure that proper size ball is on utility vehicle (1-7/8"). Make sure that the ball coupler fully locks when connecting and safety clip pin is installed. If disconnection occurs during transport or operation a serious accident could occur.



When connecting implement to utility vehicle it is very important to back up to the implement at very slow speed and keep helpers clear when doing so. Use the ratchet to raise or lower the coupling hitch to the required height.



Be sure implement is solidly supported when hitching. Movement may cause personal injury.



Never place hands or feet in possible "pinch points" such as hitch pin holes or gang adjustment holes.

TRANSPORTING:



Never allow anyone other than the operator to be on or around the utility vehicle or implement when it is being operated or moved. "NO RIDERS"



Do not transport down public roads.



Double check wheel hubs and lug nuts prior to each operation.












When transporting in bumpy conditions, be aware that the implement cannot withstand severe bouncing. Bouncing can cause the utility vehicle to overturn and result in an accident.

OPERATION:



The ATVD series disc is designed for all-terrain utility vehicles and lawn and garden tractors only.

-  **The ATVD series is not recommended for operation by children under 18 years of age.**
-  **STOP your vehicle engine prior to leaving the vehicle seat. Never leave power running without operator in driver seat.**
-  **Do not operate or work this machine without reading the owner's manual for the utility vehicle. Be aware of all safety hazards involved as outlined in the manual from the ATV vehicle.**
-  **Do not operate implement at high speeds. If operator is thrown from vehicle serious injury or death could occur if ran over by implement.**
-  **Do not operate implement on steep slopping terrain. Overturn of implement can occur and cause major injury or death and damage power source.**
-  **Keep bystanders and children clear during operation.**
-  **Keep hands, feet, and fingers clear during adjustment and operation failure to do so can cause serious injury.**
-  **Use extreme caution and slow speeds when transporting implement near power lines, gullies, tree limbs, and slopes.**
-  **Do not operate implement under the influence of alcohol.**

OPERATION GUIDELINES FOR THE ATVD SERIES DISC

- **The Tufline ATVD series disc is designed for all-terrain utility vehicles and lawn and garden tractors only.**
- **Do not overheat your power source. Make sure your vehicle has adequate power and is capable of pulling this implement.**
- **This unit is not recommended to be pulled behind ATV's with engines less than 250cc.**
- **This unit is not recommended to be pulled by ATV's with air-cooled automatic transmissions.**
- **Discing should be done at low speeds and in low gear only.**
- **The implements hitch is adjustable for different ATV hitch height variations.**

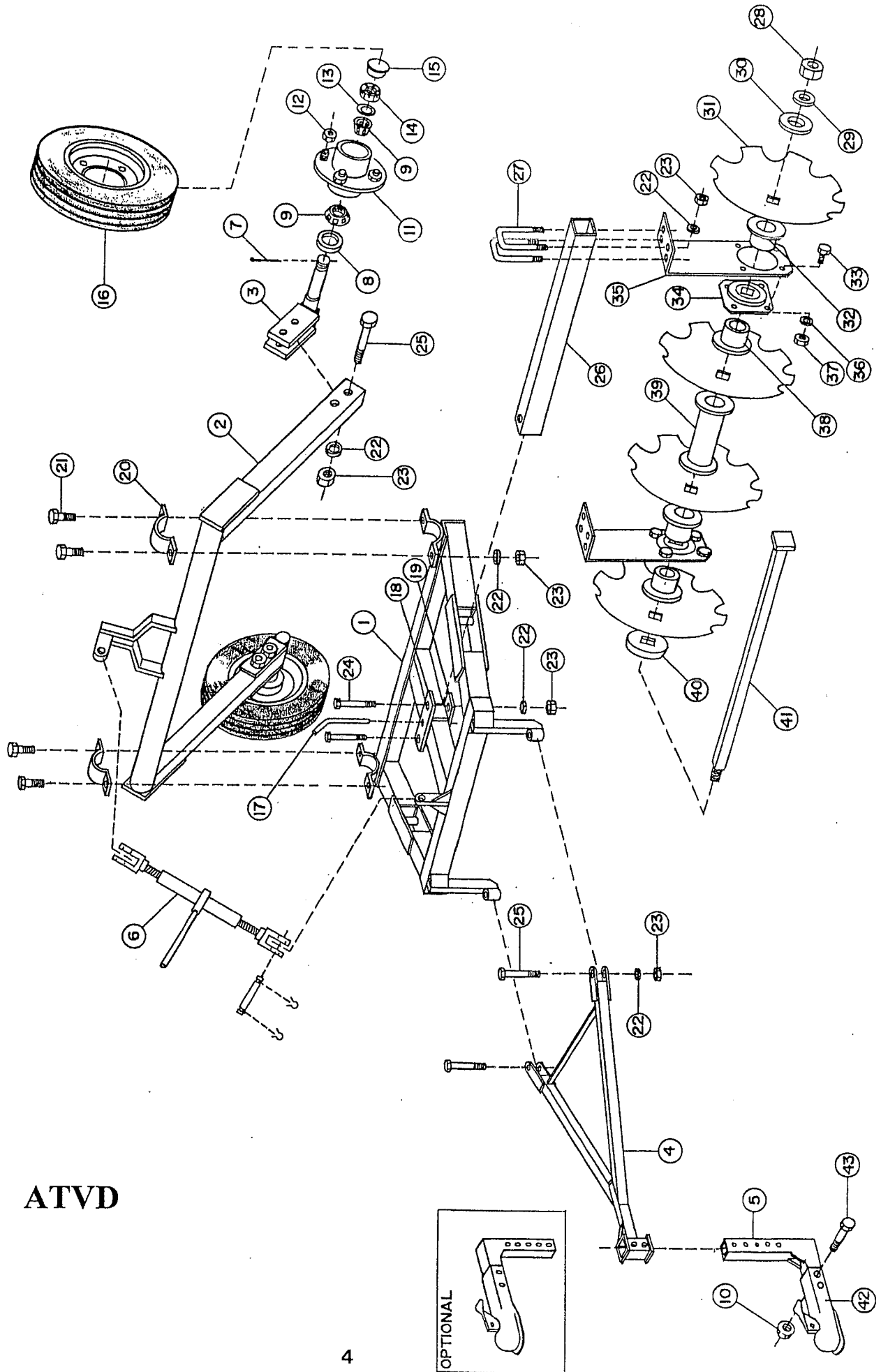
- Fully tighten all nuts and bolts prior to each operation use the torque chart for reference.
- Grease the grease zerks on the wheel carriage bar to keep transport assembly operational.
- Transport wheels are used for unit transport and as a depth control gauge when needed. If cutting in soft ground lower wheels to keep unit from digging in to deep and causing too much stress on the power source.
- Operate unit at a speed from 1 ½ to 4 mph. This gives blades time to cut and creates less stress on your implement and power source.
- Avoid sharp turns with blades in the ground. This also creates less stress on your implement and the power source.
- Use your gang adjustment to gauge how aggressive cut is required. There are three setting to choose from with the least angle being the 1st hole and the most angle being the 3rd hole from front to rear.
- In hard dry soil conditions the ATVD series works better when the transport wheels are applying light pressure to the ground. This better stabilizes the unit and helps it from cat walking.
- Do not add weight to the ATVD series implement. Added weight might cause stress to the power source and cause major damage to the vehicle.

TUFLINE BOLT TIGHTENING TORQUE CHART

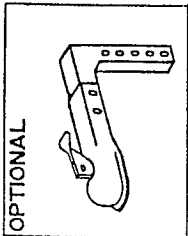
*A = Ft. lbs. B = Lbs. on 7' Lever C = Kilograms (Metric)

SIZE	DESCRIPTION	SAE GRADE								
		GRADE 2			GRADE 5			GRADE 8		
		A	B	C	A	B	C	A	B	C
1/2"	Hex Bolt	45		6	75		10	100		15
5/8"	Hex Bolt	90		12	150		20	200		30
3/4"	Hex Bolt	150		21	250	36	35	350	50	50
7/8"	Hex Bolt	165		30	350	55	50	550	80	75
7/8"	Gang Axle				250	36	35			
1"	Hex Bolt	245	43	40	580	85		825	120	110
1 1/8"	Hex Bolt	474	68	65	780	115	80	1300	185	175
1 1/8"	Gang Axle				500	72	67			
1 1/2"	Hex Bolt	1050	150	145	1700	240	230	2900	415	395
1 1/2"	Gang Axle (Thread each end)				1000	143	133			
1 1/2"	Gang Axle (with head)	1200	172	165						

** Torque wrenches may not be available for over 300 ft. lbs. Use a 7' lever and spring scales

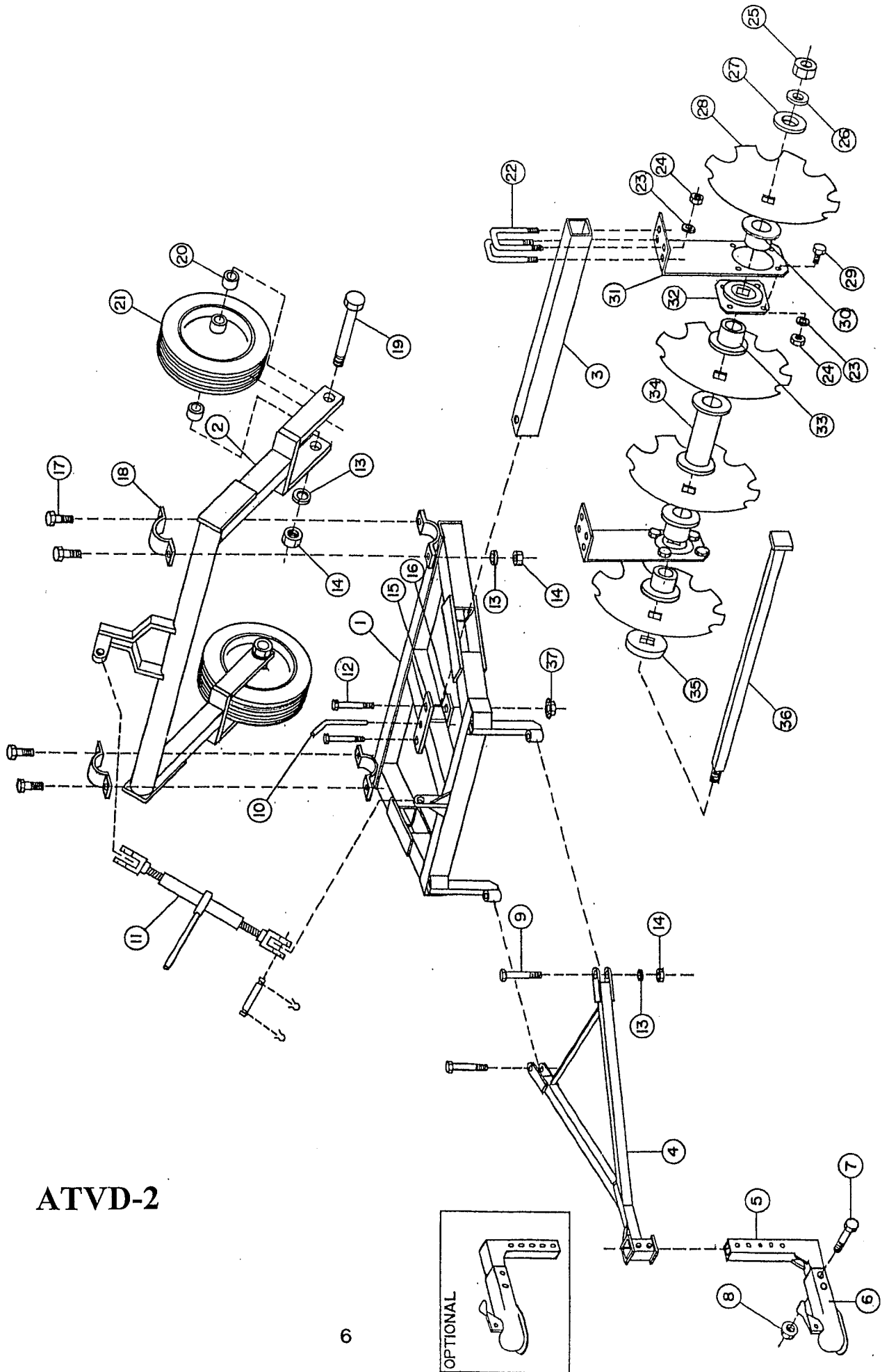


ATVD



ATVD

REF. NO.	PART #	DESCRIPTION
1	15000	MAIN FRAME WELDMENT, ATVD
2	15001	WHEEL CARRIAGE WELDMENT, ATVD
3	15002	SPINDLE WELDMENT, ATVD
4	15003	TONGUE WELDMENT, ATVD
5	15004	HITCH ADJUSTMENT WELDMENT, ATVD
6	15005	TURNBUCKLE ASSEMBLY
7	11986	COTTER PIN 5/32" X 1 1/4"
8	11980	SEAL, 1 15/16" O.D. X 1 1/4" I.D.
9	11981	BEARING, 1" (L44543)
10	12899	FLANGE LOCK NUT, 3/8"
11	11978	HUB ASSEMBLY, 4-BOLT, 2 7/16" PILOT
12	T-23	LUG NUT, 1/2" NF
13	11983	FLAT WASHER, 13/16" ID x 1 7/16" OD
14	T-567	SPINDLE NUT, 3/4" UNF
15	11985	HUB CAP, 2" O.D.
16	11977	WHEEL & TIRE ASSEMBLY
17	9406	ADJUSTING PIN
18	15097	SLIDE PLATE TOP, 3" X 3"
19	15098	SLIDE PLATE BOTTOM
20	15006	WHEEL CARRIAGE CUFF, ATVD
21	10322	HEX BOLT 5/8" X 1 1/2", GR. 5
22	T-24	LOCKWASHER, 5/8"
23	T-22	HEX NUT, 5/8"
24	T-745	HEX BOLT 5/8" X 5" GR. 2
25	T-724	HEX BOLT 5/8" X 4" GR. 2
26	11505	GANG BEAM, 3" X 3" X 24"
27	11139	U-BOLT, 5/8" FOR (3" X 3") SQUARE TUBING
28	T-28	HEX NUT, 1"
29	T-34	LOCK WASHER, 1"
30	13422	END WASHER, 1"
31	5-16118-2	DISC BLADE, 1" X 16" X .118 CUT OUT
32	13426	END SPACER, 1" X 2 3/8"
33	T-804	CARRIAGE BOLT, 1/2" X 1 1/2", GR.2
34	13689	BEARING & FLANGETTE ASSEMBLY, 1"
35	15007	BF HANGER, ATVD
36	T-25	LOCK WASHER, 1/2"
37	T-26	HEX NUT, 1/2"
38	13427	END SPACER, 1" X 3 5/8"
39	13424	SPACER SPOOL 1" X 7 1/2"
40	13423	BUMPER WASHER, 1"
41	13429	AXLE 1" X 25 7/8" (4BLADE, 7 1/2" SPACING)
42	15008	BALL COUPLER, 1 7/8"
43	12165	HEX BOLT, 3/8" X 3", GR. 2



ATVD-2

ATVD-2

REF. NO.	PART #	DESCRIPTION
1	15071	MAIN FRAME WELDMENT, ATVD-2
2	15082	WHEEL CARRIAGE WELDMENT, ATVD-2
3	10540	GANG BEAM, 2" X 2" X 25"
4	15003	TONGUE WELDMENT, ATVD
5	15004	HITCH ADJUSTMENT WELDMENT, ATVD
6	15008	BALL COUPLER, 1 7/8"
7	12165	HEX BOLT, 3/8" X 3" GR. 2
8	12899	FLANGE LOCKNUT, 3/8"
9	T-724	HEX BOLT 5/8" X 4" GR. 2
10	15094	ANGLE ADJUSTING PIN 1/2"
11	15005	TURNBUCKLE ASSEMBLY
12	T-734	HEX BOLT, 1/2" X 4", GR. 2
13	T-24	LOCKWASHER, 5/8"
14	T-22	HEX NUT, 5/8"
15	15091	SLIDE PLATE WELDMENT TOP, 2" X 2"
16	15092	SLIDE PLATE BOTTOM
17	10322	HEX BOLT 5/8" X 1 1/2", GR. 5
18	15081	WHEEL CARRIAGE CUFF, ATVD
19	T-750	HEX BOLT, 5/8" X 7" GR. 5
20	15096	SPACER, 3/4" SCH 80 X 1"
21	15099	WHEEL & TIRE ASSEMBLY
22	11138	U-BOLT, 1/2" FOR (2" X 2") SQUARE TUBING
23	T-25	LOCK WASHER 1/2"
24	T-26	HEX NUT, 1/2"
25	T-28	HEX NUT, 1"
26	T-34	LOCK WASHER, 1"
27	13422	END WASHER, 1"
28	5-16118-2	DISC BLADE, 1" X 16" X .118 CUT OUT
29	T-804	CARRIAGE BOLT, 1/2" X 1 1/2", GR.2
30	13426	END SPACER, 1" X 2 3/8"
31	15095	BF HANGER, ATVD-2
32	13689	BEARING & FLANGETTE ASSEMBLY, 1"
33	13427	END SPACER, 1" X 3 5/8"
34	13424	SPACER SPOOL 1" X 7 1/2"
35	13423	BUMPER WASHER, 1"
36	13429	AXLE 1" X 25 7/8" (4BLADE, 7 1/2" SPACING)
37	9226	HEX SELF LOCKING FLANGE NUT, 1/2"
N/S	15157	WHEEL BEARING, 5/8" (not shown, mounts in part# 15099)

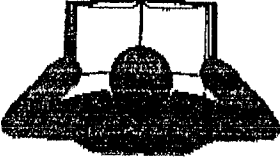
**** IMPORTANT ****

SAFETY DECALS

Below are photocopies of important safety decals, which should at all time, be on your ATVD series implement. If your decals have been damaged or removed please Call or write Tufline for a free new set.

Monroe-Tufline Mfg. Co., Inc.
P.O.Box 186
Columbus, Ms. 39703
1-800-537-5943


⚠ WARNING



To Prevent Serious Injury or Death:

- Avoid unsafe operation and maintenance
- Do not operate or work on this machine without reading and understanding the operator's manual
- If manual is lost, contact your dealer or Mfg. at (1-800-537-5943) for a new one

⚠ WARNING



Keep hands, fingers, and feet clear during adjustment and operation. Injury or dismemberment may occur if not careful!


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IMPORTANT

To Prevent Equipment Damage:

- ATVD series is designed for all-terrain utility vehicles and your lawn and garden tractors only
- Operate at low speed, in low gear and be careful not to overheat your power source
- Sharp turns and high speeds can cause stress to your unit and power source
- Read owner's manual and return warranty registration card

⚠ WARNING




OVERTURN HAZARD

To Prevent Serious Injury or Death:

- Do not operate at high speeds
- Do not turn sharply
- Do not operate on unlevel ground
- Do not allow riders
- Keep bystanders and children clear when operating
- Keep body parts away from moving parts

⚠ WARNING



FALLING BLADE HAZARD

- Can cause serious injury or death.
- Keep hands and feet from under raised blade.

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