

Km RAKE CADDY

Instruction Manual and Parts List

Use this manual for safety instructions and operating instructions.
Make sure that everyone who operates this machine has read this manual completely!
Save for future use.

IMPORTANT

It is very important to follow the instructions for adjusting ground pressure. Failure to adjust ground pressure will allow the Rake to dig into the soil. This will result in poor performance and possible damage.



OGDEN

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Introduction

The Km Rake Caddy has been engineered and built for ease of operation and long service life. The Km Wheel Rake Caddy has been designed to transport and operate a pair of 4 Wheel, 5 Wheel or 6 Wheel Rakes in a V-type configuration.

It is important that you thoroughly understand the operation of the wheel rake caddy before use. Read through this manual completely, watching especially for safety symbols (see illustration below) which will alert you to possible safety hazards.



The word “**NOTE**” will alert you to special information such as specifications, techniques, reference information and other supplementary information. This safety alert symbol is used throughout this manual to identify possible safety hazards. It is the user’s responsibility to read the operator’s manual and comply with all the instructions pertaining to operation and maintenance. It is also the user’s responsibility to inspect the machine at regular intervals and repair or replace worn or damaged parts when continued use would cause damage or excessive wear to other parts. The word “**Important**” is used to point out a note which is of an immediate and urgent nature.

The manufacturer reserves the right to make improvements, discontinue or change specifications, models or design without notice and without incurring obligation.

When ordering parts for your wheel rake caddy, please specify the part number and the part description as shown in the parts listing in this manual. Please give the serial number of the wheel rake caddy in all correspondence when referring to the wheel rake caddy. Record the serial number and purchase date here for future use.

Serial Number _____

Model _____ **Purchase date** _____

IMPORTANT: When this machine is traded or sold, make sure this manual accompanies the machine so future operators will have complete operating instructions and safety warnings available to them.

Safety Instructions



CAUTION: This machine should never be operated by anyone who is not familiar with the product and has not read the instruction manual. Do not allow children to operate the Wheel Rake Caddy.

All persons operating this machine should read and understand the Instruction Manual.

Read and understand all safety decals located on the machine.

Keep Safety Decals clean and legible at all times.

Replace Safety Decals that are missing or become illegible.

Do not allow anyone to ride on the machine.

Be sure machine is attached securely to the tractor before operating or transporting.

Inspect the Wheel Rake Caddy daily. Lubricate and repair or replace parts as needed.

Maintain and keep all Safety Shields in place.

Make sure Rakes are locked whenever they are in the folded position before working around the machine or for transporting.

Before operating the machine inspect for loose or damaged bolts or parts and make necessary repairs before starting.

All bystanders should be a safe distance from the machine when in operation.

High-pressure oil leaks can penetrate skin causing serious injury. Do not use your finger or other skin to check for leaks.

Apply parking brake and stop tractor engine before dismounting tractor.

Keep hands, feet and clothing away from moving parts.

Never transport faster than surface conditions allow.

Display the SMV Emblem when transporting with a tractor.

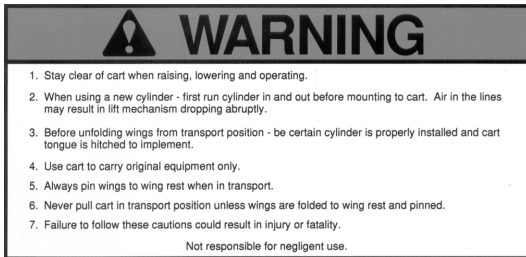
Make sure you are in compliance with all local regulations regarding transporting agriculture equipment on public roads and highways. Consult your local law enforcement agency for further details.

Ensure that the Slow Moving Emblem (SMV) and all reflectors and lights required by the local highway and transport authorities are in place and are clean and visible by overtaking and oncoming traffic.

Decals

Important: The following decals or similar decals are located on your Hay Rake Caddy. Before you operate the Hay Rake Caddy, read and understand the purpose for each decal. Replace any damaged decals. Keep all decals clear and readable.

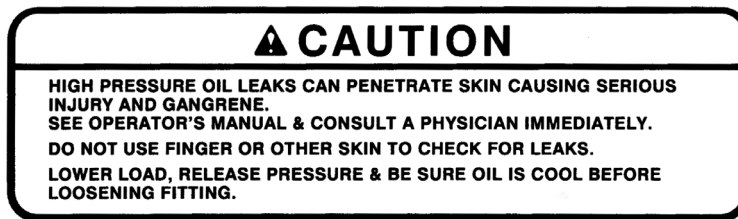
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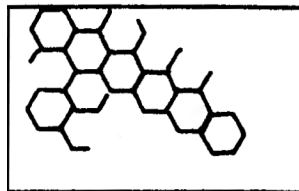
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Ogden Wheel Rake Caddy Decal Parts List

Item No.	Part No.	Description	Qty.
1	0-52	Decal, Warning Operating	1
2	0-70	Decal, Caution Stay Clear	1
3	0-82	Decal, Hydraulic Caution	2
4	0-71	Decal, Red Reflector	2

ASSEMBLY

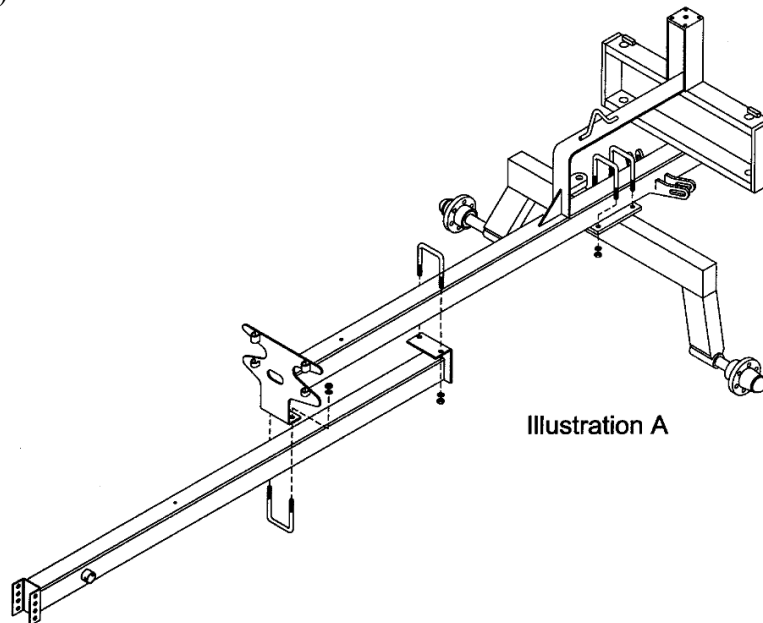


CAUTION: Wear proper protective equipment such as safety glasses and protective shoes when assembling.

Layout and identify all parts. Many parts will be partially assembled by the manufacturer. The main frame and swing arms are assembled, along with the tension spring and adjustment chain, and the hydraulic cylinder is installed. The spindle and hubs are also installed on the axle.

AXLE INSTALLATION

Support the main frame assembly on some sturdy stands. Place the axle assembly, with the longer side of the mounting plate towards the front, under the main frame and attach using 2 - 5/8" u-bolts, lockwashers and hex nuts. The u-bolts should be installed facing downward. The axle should be positioned between the sliding linkage brackets and the hydraulic cylinder mount. (See illustration A)



TONGUE INSTALLATION

Position the tongue overlapping the bottom of the rake caddy frame by approximately 24". Attach by using 2 - 5/8" u-bolts, lockwashers and hex nuts. One u-bolt is installed over the main frame and through the holes in the back of the tongue and the other u-bolt is installed under the tongue and through the holes in the front of the main frame. (See illustration A) The overlap on the tongue is not critical and can be adjusted to provide enough turning clearance.

Attach the tongue clevis using 2 - 5/8" x 6" capscrews and Nylock nuts.

Install the threaded rod hose holder in the threaded hole on top of the tongue. Install a ½” jam nut on the rod before installing. Tighten the jam nut after the rod is in position.

TIRES AND TONGUE JACK INSTALLATION

Install tires on the wheel rims supplied and install on the hubs. Torque the four lug bolts on each wheel to 75 FT.-LBS.

NOTE: The height of the tires used will effect the operation of the wheel rakes. It is recommended that 195 x 14” tires be used.

Install the support jack on the tongue using the pin supplied.

HYDRAULIC HOSE INSTALLATION

Two hydraulic hoses, one ¼” x 196” and one ¼” x 208” are included. Connect the longer hose to the rear port of the cylinder using a 90 deg. Elbow. Connect the shorter hose to the front port using a 90 deg. Elbow. Route the hoses through the hole on the front of the main frame. Install the restrictor swivel on the male end of one hose.

IMPORTANT: Do not operate without restrictor installed!

Before installing hydraulic hoses, check for foreign material in hoses. Keep hoses and fittings clean at all times. Be sure all connections are properly sealed to avoid leakage.



CAUTION: Do not exceed manufacturers recommended maximum hydraulic system pressure.

If the optional tongue extension is used, install the two ¼” x 48” hoses included in the kit on the 196” and 208” hoses using the ½” NPT couplers provided. Install the restrictor fitting on the end of one extension hose.

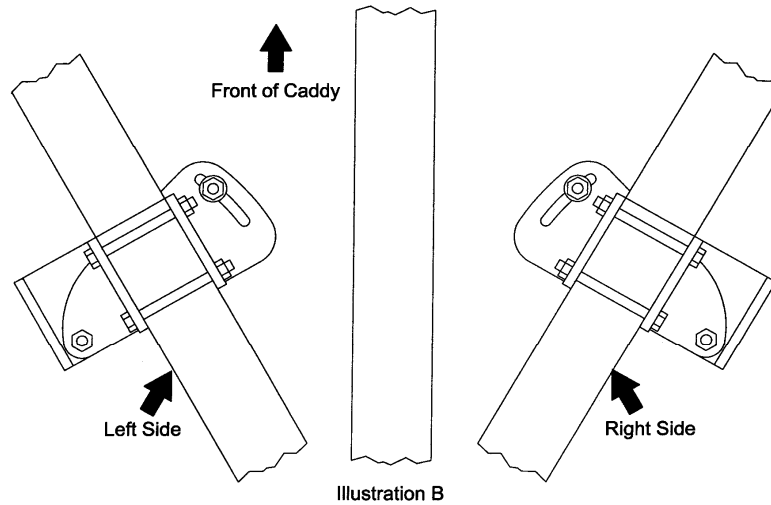


WARNING: Always wear protective eye goggles and use a magnifying glass or hold a piece of wood on suspected leaks. Pin hole hydraulic leaks can penetrate skin. Do not touch. Note: If fluid penetrates the skin, it must be surgically removed within a few hours by a doctor familiar with the form of injury or gangrene may result. Make sure the weight of the machine has been taken off the hydraulic cylinder before disconnecting the hydraulic hoses.

Install the hose holder on the tongue just forward of the cylinder using a capscrew and lockwasher. Secure the hoses on the holder with the clip, capscrew, lockwasher and hex nut.

RAKE MOUNTING BRACKET INSTALLATION

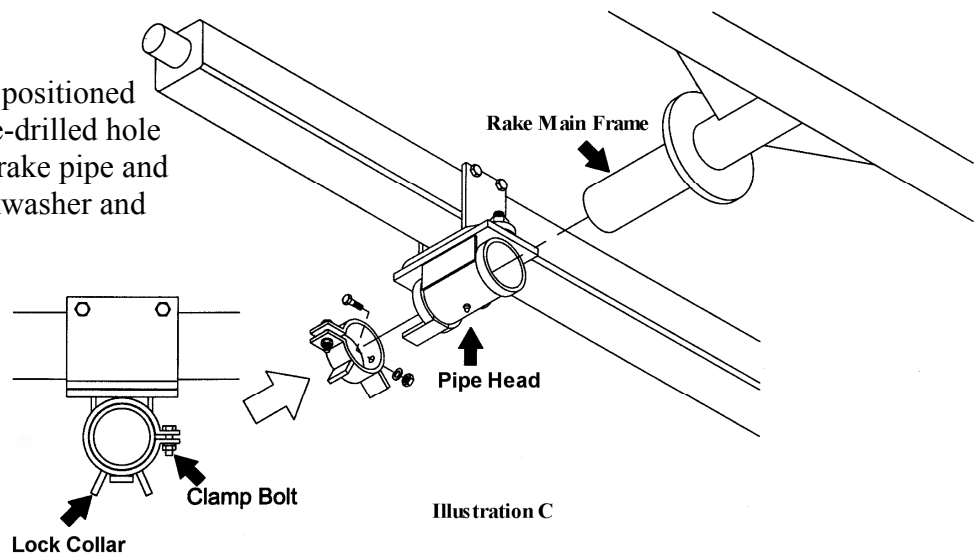
The Rake Mounting Brackets are two piece brackets normally assembled at the factory. The brackets attach to the bottom side of the rake caddy wings and are secured with 2 – 5/8" x 6 hex capscrews, lockwashers and hex nuts. (See illustration B) The final position of the mounting brackets on the wing is determined by the desired width of the windrow. Moving the rake mounting brackets forward on the wing makes the windrow wider. Moving the rake mounting brackets rearward makes the windrow narrower.



MOUNTING WHEEL RAKE MAIN FRAMES

(See illustration C) Insert the rake main frame into the pipe head on the rake mounts. This operation can be made easier if the caddy is connected to the tractor, hydraulics are connected and the wings are extended. Install the lock collars on the rake tubes. Tighten the 1/2" x 1 1/2" bolts, lockwashers and hex nuts. The ears on the lock collar should be on either side of the tab on the mount tube so the rake can float as it works.

Important: When the rake is positioned correctly, drill through the pre-drilled hole in the lock collar through the rake pipe and install a 5/16" shear bolt, lockwasher and Hex nut.



OPERATION

Before operation, lubricate all grease zerks, check tightness of lug bolts and spindle setscrews.

Important: Before operation, the operator should be familiar with these operation instructions and operation of tractor. Do not allow an unqualified person or one under the influence of medication or intoxicating substances to operate the tractor.

1. Connect the machine to the tractor tongue using a ¾" hitch pin with a retaining clip. The adjustable jack will allow the tongue to be raised or lowered during hookup. After hookup to the tractor, store the jack in the horizontal position
2. Connect the hydraulic inlet and outlet hoses to the tractor system.



CAUTION: Make sure a restrictor is installed on one of the hydraulic lines. Failure to use a restrictor will allow the machine to fold and unfold rapidly and could result in damage to the machine and injury to bystanders.

3. To lower the rakes to the working position, pull the transport pins for each wing and apply hydraulic pressure to the cylinder. The rakes will spread apart and the rakes will lower to the working position. The transport pins can be stored in the raised position by installing clips in the upper holes.



CAUTION: Operate the hydraulic cylinder through the cycle a few times to expel all air from the system. Failure to fully charge the hydraulic system could result in injury when the rakes abruptly fall to the ground.



CAUTION: Make sure the area around the machine is clear before lowering. Do not lower rakes when people or pets are near the rakes or folding mechanism.

4. Set the rake angle by loosening the ¾" bolt in the rake mounting bracket and repositioning the rakes. (See illustration B) This adjustment should be made to both sides so the windrow remains in the center of the caddy.
5. Working speed is normally 5 to 10 MPH. Speed varies with different hay conditions or terrain.

6. To raise the rakes, apply hydraulic pressure to the cylinder. When the wings are in the retracted position, install the transport pins in the frame to lock the wings in place.
7. Use the chart to adjust the rake to ground pressure. (See illustration F) When set properly the individual rakes wheels should be light enough to float over the contour of the ground while maintaining a constant ground speed. Each side of the spring is equipped with a half link quick adjusting bracket. To adjust, fold the caddy up and slide the chain over to the desired setting. Each step equals a half link adjustment.



CAUTION: Never try to adjust spring tension with the rake in the working position. Raise the rakes to the transport position before making adjustments. Failure to do so could result in serious injury.

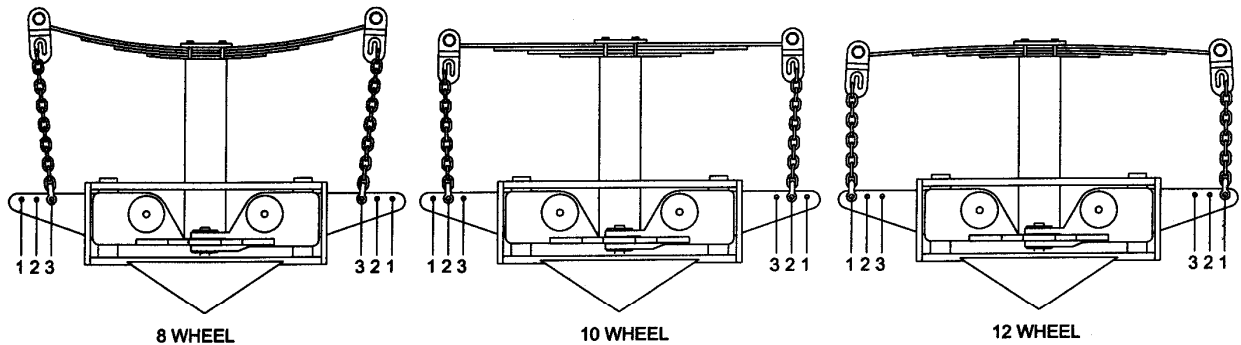


Illustration F

TRANSPORTING

To transport, retract the wings until they are in place against the main frame and install the locking pins so the pins capture the lugs on the wings. Secure the pins in place with hairpin clips.



CAUTION: Never transport rakes without locking pins in place.

Avoid sharp turns during transport to prevent contact between rakes and the machine. Slow down when approaching trees, fences or ditches to avoid damage to rakes.

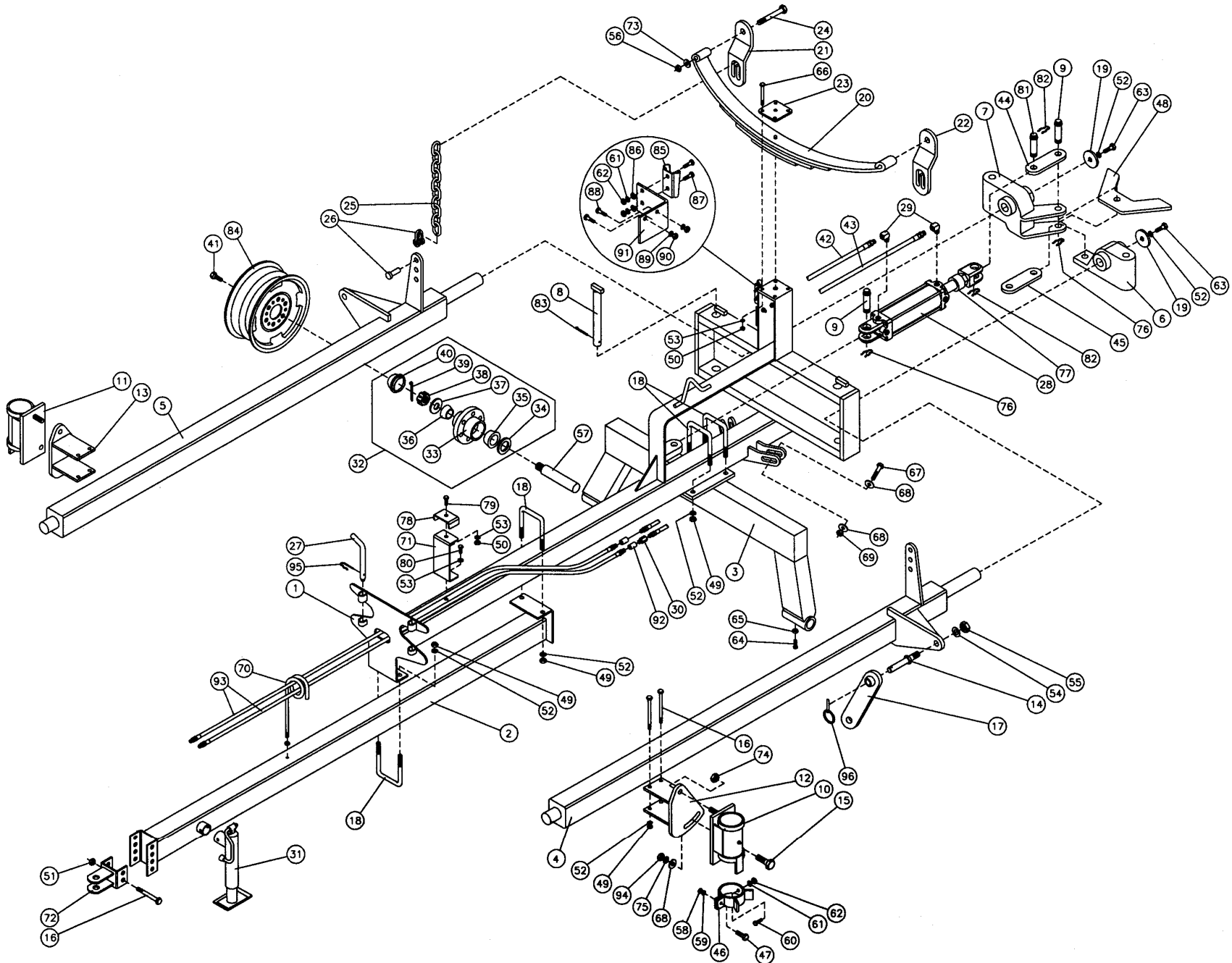


CAUTION: When towing on public roads, a slow moving vehicle (SMV) sign should be installed so it is visible to vehicles following. Warning lights should also be installed on the tractor so they are visible to other motorists. Comply with state and local safety requirements at all times.

MAINTENANCE

1. Check hydraulic hoses periodically for cracks, abrasions or leaks. Replace defective hoses immediately. Replace worn or broken hoses and fittings with factory replacement parts only.
2. To extend the life of the hydraulic cylinder and hoses, store the machine under cover. If cover is not available, remove the cylinder and hoses and store under cover.
3. Check tightness of lug bolts and spindle setscrews after one hour of operation and every six months thereafter. Check tire pressure whenever maintenance is performed.
4. Lubricate all grease zerks before operating the first time and periodically thereafter.
5. Repack wheel bearings with grease every 6 months.

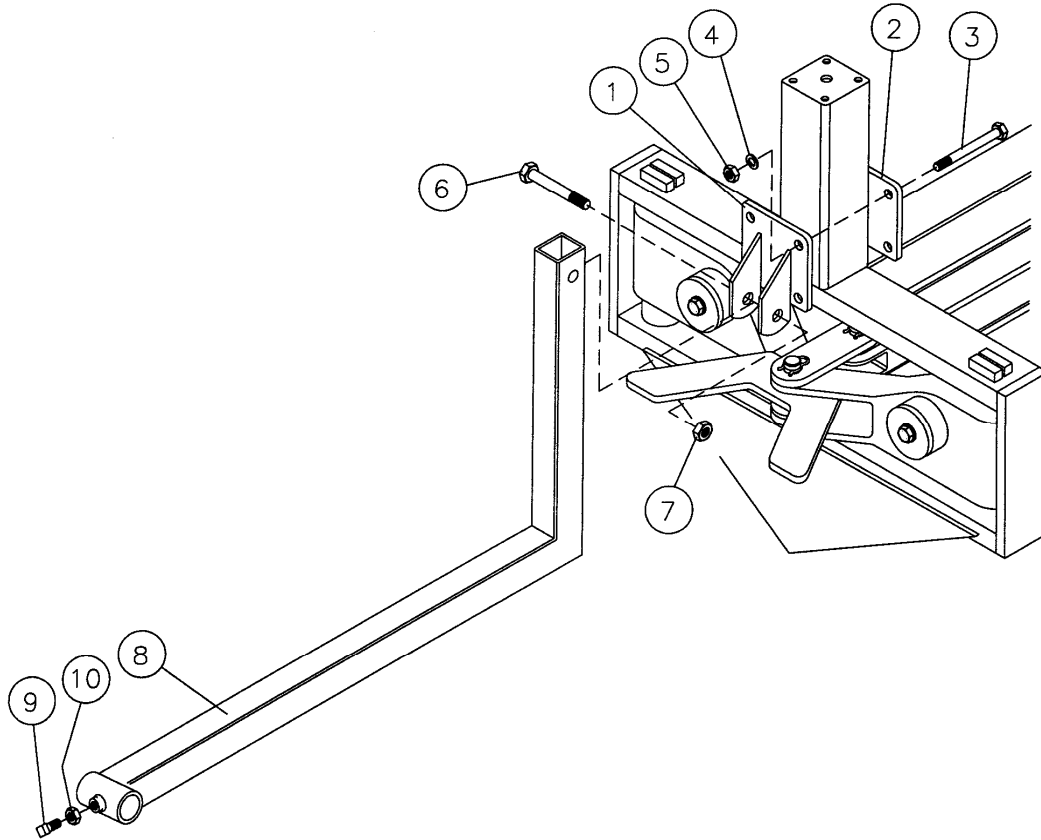
Km Rake Caddy



Km Rake Caddy Parts list

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	K-100	Center Section Weldment	1	33	K-215	Hub with Cups	2	68	K-319	Flat Washer, 3/4"	6
2	K-101	Tongue Weldment, 8/10 Wheel	1	34	K-216	Grease Seal, CR14975	2	69	K-320	Hex Nylock Nut, 3/4"	2
	K-125	Extended Tongue Weldment, 12 Wheel	1	35	K-217	Inner Bearing, LM67048	2	70	K-230	Hose Holder, 3/8" Threaded	1
3	K-102	Axle Weldment	1	36	K-218	Outer Bearing, LM11949	2	71	K-117	Hose Holder, 3/8" Hole	1
4	K-103	LH Wing Weldment	1	37	K-219	Washer	2	72	K-118	Clevis Hitch	1
5	K-104	RH Wing Weldment	1	38	K-220	Slotted Nut, 3/4"-16	2	73	K-322	Flatwasher, 1/2"	2
6	K-200	LH Hinge	1	39	K-221	Cotter Pin, 5/32" x 1 1/4"	2	74	K-323	Hex Nylock Nut, 1"	2
7	K-201	RH Hinge	1	40	K-222	Hub Cap	2	75	K-324	Lockwasher, 3/4"	2
8	K-105	Hinge Pin	2	41	K-223	Lug Bolt, 1/2"-20 x 1"	8	76	K-232	Hairpin	2
9	MC133	Cylinder Pin	2	42	K-224	Hydraulic Hose, 196"	1	77	K-120	Cylinder Stroke Adjuster	1
10	K-106	LH Pipe Head	1	43	K-225	Hydraulic Hose, 208	1	78	K-121	Hose Holder Top	1
11	K-107	RH Pipe Head	1	44	K-114	Cylinder Linkage Plate, 5/16"	1	79	K-325	Hex Capscrew, 3/8" x 1 1/2"	1
12	K-108	LH Head Mounting Plate	1	45	K-126	Cylinder Linkage Plate, 7/16"	1	80	K-326	Hex Capscrew, 3/8" x 1"	1
13	K-109	RH Head Mounting Plate	1	46	K-115	Lock Collar	2	81	K-202	Linkage Pin	1
14	K-203	Hitch Pin, Cat I, 1 7/8"	2	47	K-303	Hex Capscrew, 1/2" x 1 1/2"	2	82	K-330	Clip Pin	2
15	K-300	Hex Capscrew, 3/4" x 2"	2	48	K-116	Wing Stop	1	83	K-338	Cotter Pin, 3/16" x 2 1/2"	2
16	K-301	Hex Capscrew, 5/8" x 6"	6	49	K-304	Hex Nut, 5/8"-11	12	84	K-329	Rim, 14" 4 Bolt	2
17	K-110	Linkage Arm	2	50	K-305	Hex Nut, 3/8"-16	6	85	MC117	SMV Socket	1
18	K-204	U Bolt, 5/8" x 4" x 5 1/4"	4	51	K-306	Hex Nylock Nut, 5/8"-11	2	86	K-339	Flatwasher, 3/8"	2
19	K-111	Wing Retaining Plate	2	52	K-307	Lockwasher, 5/8"	14	87	K-333	Carriage Bolt, 5/16" x 1 1/2"	2
20	K-205	Standard Leaf Spring, 1750#, 8/10 WH	1	53	K-308	Lockwasher, 3/8"	6	88	K-334	Hex Capscrew, 1/4" x 1"	2
	K-206	HD Leaf Spring, 2400#, 12 WH Rakes	1	54	K-227	Lockwasher, 7/8"	2	89	K-335	Lockwasher, 1/4"	2
21	K-112	RH Chain Hanger	1	55	K-228	Hex Nut, 7/8"-14	2	90	K-336	Hex Nut, 1/4"	2
22	K-119	LH Chain Hanger	1	56	K-309	Hex Nylock Nut, 1/2"-13	2	91	K-337	SMV Mounting Plate	1
23	K-113	Leaf Spring Mounting Plate	1	57	K-229	Spindle	2	92	OE-302	Pipe Coupler, 1/2"	2
24	K-302	Hex Capscrew, 1/2" x 3"	2	58	K-310	Hex Nut, 1/2"-13	2	93	OE-58	Hose Extension, 4'	2
25	K-207	Chain	2	59	K-311	Lockwasher, 1/2"	2	94	0-170	Hex Nut, 3/4"	2
26	K-208	Chain Clevis	2	60	K-312	Hex Capscrew, 5/16" x 1	2	95	K-338	Hairpin, 5/32" x 2 15/16"	2
27	K-209	Transport Lock Pins	2	61	K-314	Lockwasher, 5/16"	4	96	K-340	Lynch Pin	2
28	K-210	Hydraulic Cylinder, 2 1/2" x 8"	1	62	K-313	Hex Nut, 5/16"	4				
	K-211	Hydraulic Cylinder, 3" x 8"	Opt.	63	K-315	Hex Capscrew, 5/8" x 1 1/4"	2				
29	K-212	Elbow, 90 Degree	2	64	K-316	Square Head Setscrew, 1/2" x 1 1/2"	2				
30	K213	Flow Restrictor	1	65	0-179	Jam Nut, 1/2"	2				
31	K-214	Tongue Jack	1	66	K-317	Hex Capscrew, 3/8" x 2 1/2"	4				
32	K-231	Complete Hub Assembly	2	67	K-318	Hex Capscrew, 3/4" x 4"	2				

Km Rake Caddy Center Wheel Kit



Item No.	Part No.	Description	Qty.
1	K-123	Center Wheel Mounting Bracket	1
2	K-122	Back Plate	1
3	K-328	Hex Capscrew, 1/2" x 4 1/2"	4
4	K-311	Lockwasher, 1/2"	4
5	K-310	Hex Nut, 1/2"	4
6	K-327	Hex Capscrew, 5/8" x 3 1/2"	1
7	K-306	Nylock Nut, 5/8"	1
8	K-124	Center Wheel Arm	1
9	K-316	Squarehead Setscrew, 1/2" x 1 1/2"	1
10	0-179	Jam Nut, 1/2"	1

