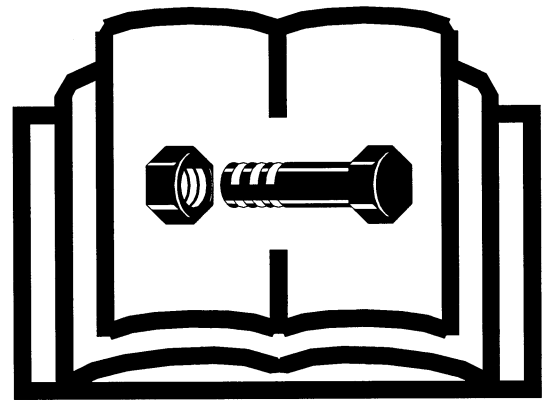
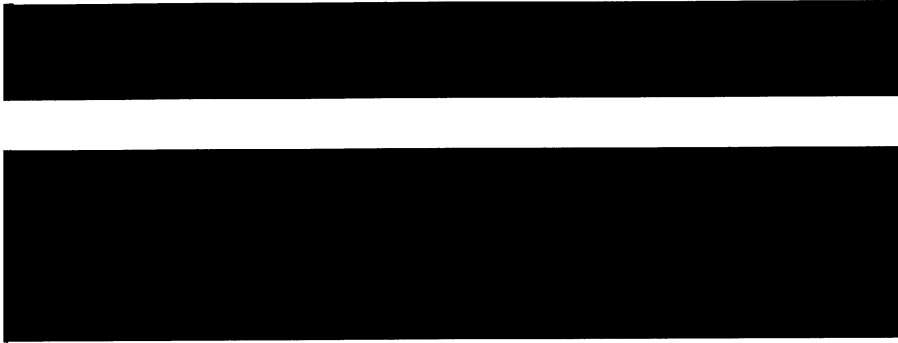


# Vermeer

*Wheel Rake*



## Parts Manual

PMMY94-2  
WR-20 SERIAL NO. 115 UP  
WR-22 SERIAL NO. 119 UP  
WR-24 SERIAL NO. 105 UP  
ORDER NO. 105400-K31

## INTRODUCTION

### HOW TO USE THE MANUAL

This manual contains illustrations and parts lists of components and assemblies which make up the machine. Each page consists of the name of the assembly or component, a figure number, reference numbers, part numbers, part names, and the quantities of the parts used.

**Assembly or component name** helps identify the illustration and parts list for each figure. This name also helps locate the general area of the machine where the assembly or component can be located.

**Figure numbers** are used to identify each assembly or component and to group these assemblies or components into major categories.

**Reference numbers** shown in a column refers to the numbered parts in the illustration. This ties the part in the illustration to the part number and description in the parts list.

EN-OM-0222-AP92

Part numbers are used to identify individual parts or part assemblies.

**Part descriptions** provide the name of the part, plus additional information such as dimensional specifications and what parts are grouped together to form part assemblies, which helps you identify the part(s).

**Quantities** listed for each figure are only for that assembly or component and not the total used per machine.

**Parts** are listed by part number in numerical order in the back portion of the manual. After each part number is a list of references where the part is used in the manual.

This parts manual is not intended to be a complete guide for machine service or repairs. Contact your Vermeer dealer for any of your service or technical requirements.

### ORDERING PARTS

Parts for repair or replacement are available through our network of authorized dealers located throughout the world.

Use only authorized Vermeer parts for repair or replacement. Always give the serial number

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and model number of the machine for which parts are being ordered. When ordering parts for component(s), which are not manufactured by Vermeer Manufacturing, also give the serial number of that component(s). Order all parts by part number, part name, and quantity needed.

### UPDATING AND REORDERING MANUALS

The parts lists, illustrations, and specifications in this manual are based on the latest information available at time of publication. Your machine may have product improvements and options not yet contained in this manual.

Vermeer Manufacturing Company reserves the right to make changes at any time without notice or obligation to you.

EN-OM-0224-AP92

Your dealer will receive notice of these changes and can assist you with accurate parts identification when ordering.

A copy of this manual is supplied with each machine. Additional copies are available through your dealer. When ordering additional manuals, use the reorder number listed on the front cover and the quantity needed.

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Box 200, New Sharon Road  
Pella, Iowa 50219-0200

EN-OM-3140-JA94

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Revised August 2003 due to  
update to this page.

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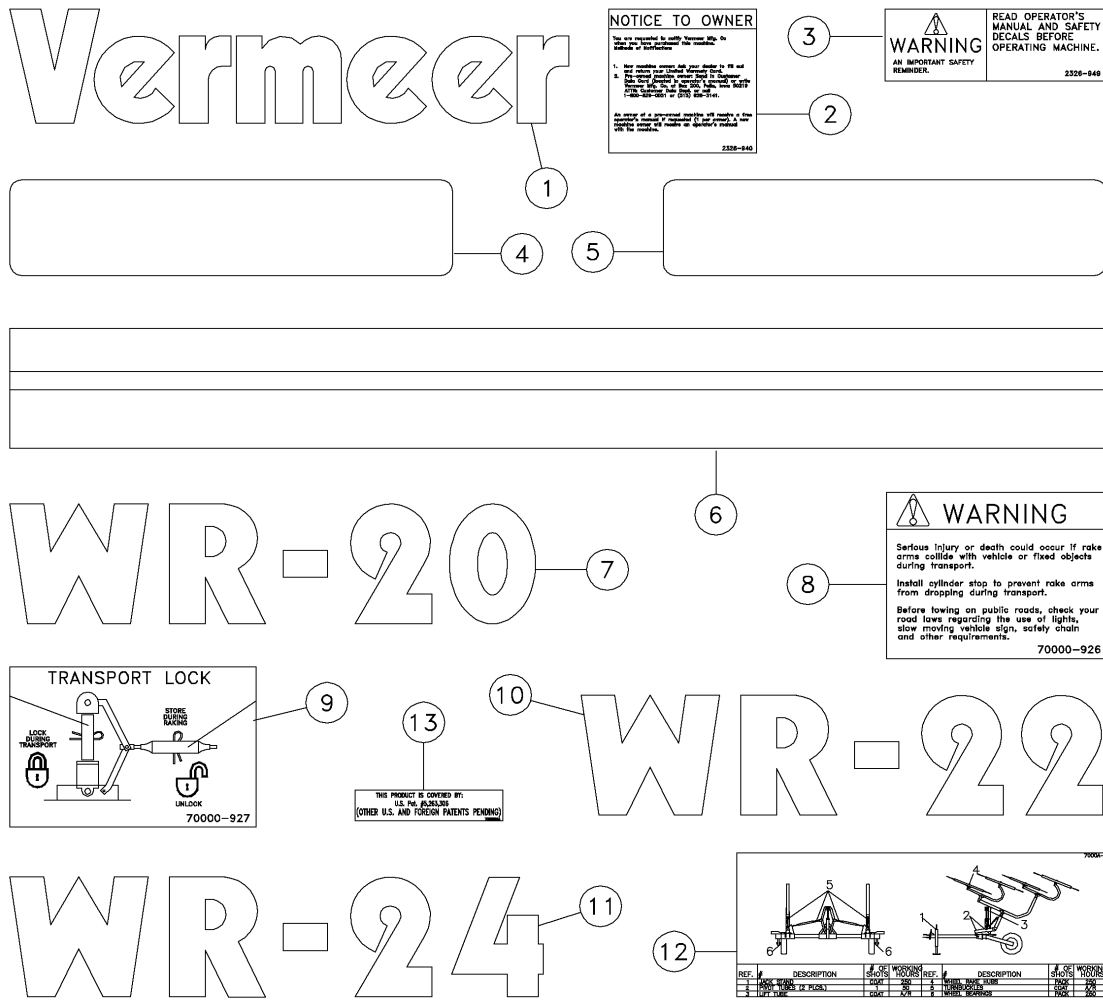
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DECAL ASSEMBLY

Revised November 2002 due to update to this figure.

Figure 1-1



## DECAL ASSEMBLY

Revised November 2002 due to  
update to this figure.

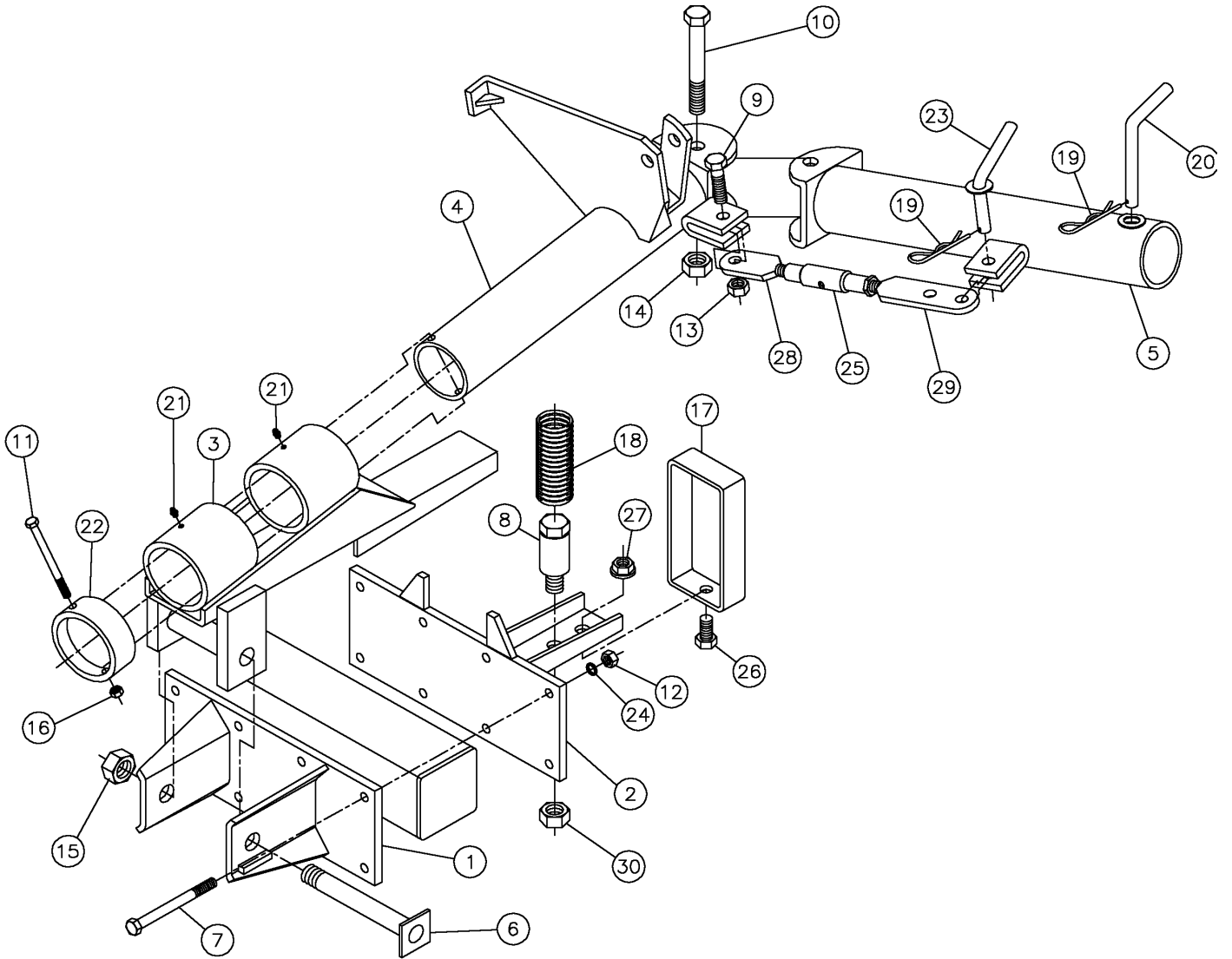
Figure 1-1

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>SERIAL NO</u>	<u>REMARKS</u>
1-1	1	2326-621	DECAL-VERMEER 2 3/8" X 11 7/8"	2	
1-1	2	2326-940	DECAL-NOTICE TO OWNERS	1	
1-1	3	2326-949	DECAL-WARNING 1 1/2" X 3 1/2"	1	
1-1	4	70000-170	DECAL-RED REFLECTOR	2	
		7000B-068	DECAL-RED REFLECTOR (WR-20 SN 4375 & UP) (WR-22 SN 1801 & UP)	2	
1-1	5	70000-722	DECAL-AMBER REFLECTOR	2	
		7000B-069	DECAL-AMBER REFLECTOR (WR-24 SN 449 & UP)	2	
1-1	6	70000-774	DECAL 2 1/2" VERMEER STRIPE	A/R	
1-1	7	70000-922	DECAL-MODEL WR-20	2	
1-1	8	70000-926	DECAL-WARNING	1	
1-1	9	70000-927	DECAL-TRANSPORT LOCK	1	
1-1	10	70000-923	DECAL-MODEL WR-22	2	
1-1	11	70000-924	DECAL-MODEL WR-24	2	
1-1	12	7000A-551	DECAL-LUBE CHART (COMMON)	1	
	84530-152	DECAL ASSEMBLY WR-20 (INC. REF. 1-12)			
	84530-153	DECAL ASSEMBLY WR-22 (INC. REF. 1-6, 8-10 & 12)			
	84530-154	DECAL ASSEMBLY WR-24 (INC. REF. 1-6, 8, 9, 11 & 12)			

PIVOT HEAD ASSEMBLY

Revised November 2002 due to update to illustration.

Figure 1-2



## PIVOT HEAD ASSEMBLY

Revised November 2002 due to update

in parts list. Changed items marked w/

Figure 1-2

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>SERIAL NO</u>	<u>REMARKS</u>
1-2	1	115625-001	SUPPORT FOR HEAD	2	
1-2	2	121459-001	PLATE-SUPPORT SPRING	2	
1-2	3	115648-001	HEAD FOR FRAME L.H. (SHOWN)	1	
		115627-001	HEAD FOR FRAME R.H.	1	
1-2	4	115643-001	PIVOT FOR FRAME L.H. (SHOWN)	1	
		115628-001	PIVOT FOR FRAME R.H.	1	
1-2	5	115642-001	PIVOT MOVEABLE L.H. (SHOWN)	1	
		115629-001	PIVOT MOVEABLE R.H.	1	
1-2	6	115653-001	PIVOT HEAD/FRAME	2	
1-2	7	507093-040	SCREW-HCS,M12-1.75X40,8.8,YZ	16	
1-2	8	121460-001	SPRING GUIDE	2	
1-2	9	506037-055	SCREW-HCS,M16-2.00X55,8.8,YZ	2	
1-2	10	506039-150	SCREW-HCS,M20-2.50X150,8.8,YZ	2	
1-2	11	507092-120	SCREW-HCS,M10X120,8.8,YZ	2	
1-2	12	575-001	NUT-HEX,M12-1.75,CL8,YZ	16	
1-2	13	506044-016	NUT-HEX TOPLOCK,M16-2.00,YZ	2	
1-2	14	507085-020	NUT-HEX FLNGLOCK,M20-2.50,10.9,YZ	2	
1-2	15	506044-024	NUT-HEX T.L.,M24-3.00,YZ	2	
1-2	16	506044-010	NUT-HEX T.L.,M10-1.50,YZ	2	
1-2	17	122405-001	SAFETY LOOP	2	
1-2	18	115651-001	SPRING	2	
1-2	19	1793-005	HAIR PIN COTTER-.125 WIRE	4	
1-2	20	130854-003	PIN-5/8X4 V.L. 45 DEG. BENT	2	
1-2	21	115645-001	GREASER M10	4	
1-2	22	115646-001	RING	2	
1-2	23	130854-001	PIN-5/8X3.25 V.L. 45 DEG. BENT	2	
1-2	24	506047-012	WASHER-LOCK M12,YZ	16	
1-2	25	*115649-002	CENTER SLEEVE	2	
1-2	26	506038-050	SCREW-HCS,M18-2.50X50,8.8,YZ,D933,FT	2	
1-2	27	507085-018	NUT-HEX FLNGLOCK,M18-2.50,10.9,YZ	2	
1-2	28	*115649-003	ROD WITH BLADE & ONE HOLE	2	
1-2	29	*115649-004	ROD WITH BLADE & TWO HOLES	2	
1-2	30	506043-018	NUT-HEX,NYL,M18 -2.50,YZ,D985	1	
		*115649-001	COMPLETE TURNBUCKLE (INC. REF. 25, 28 & 29)		

**(PAGE 1-2B) WR-20/WR-22/WR-24 WHEEL RAKE**

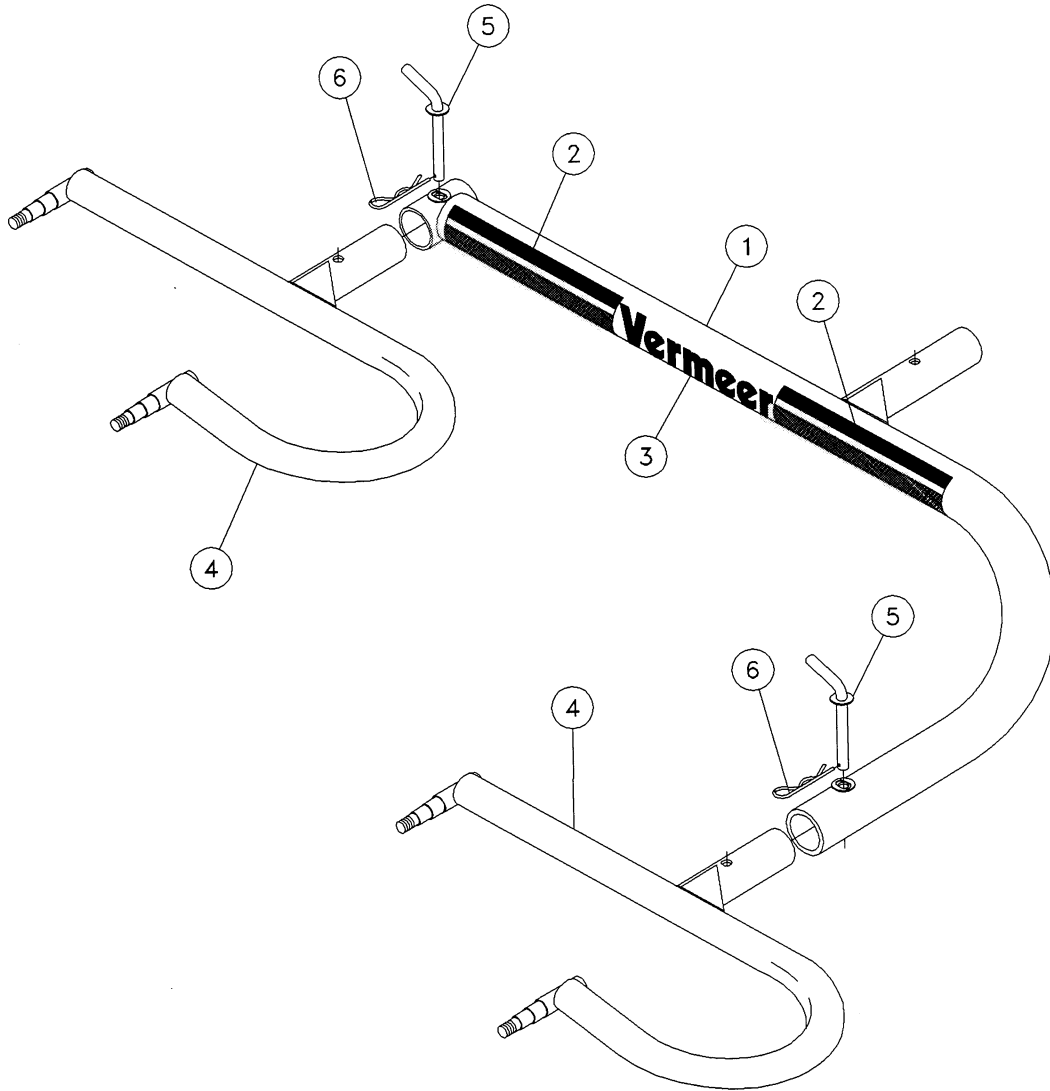
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MAIN FRAME ASSEMBLY - 4 WHEEL

Figure 1-3

Revised June 2000 due to update  
in parts list. Changed parts marked with \*.

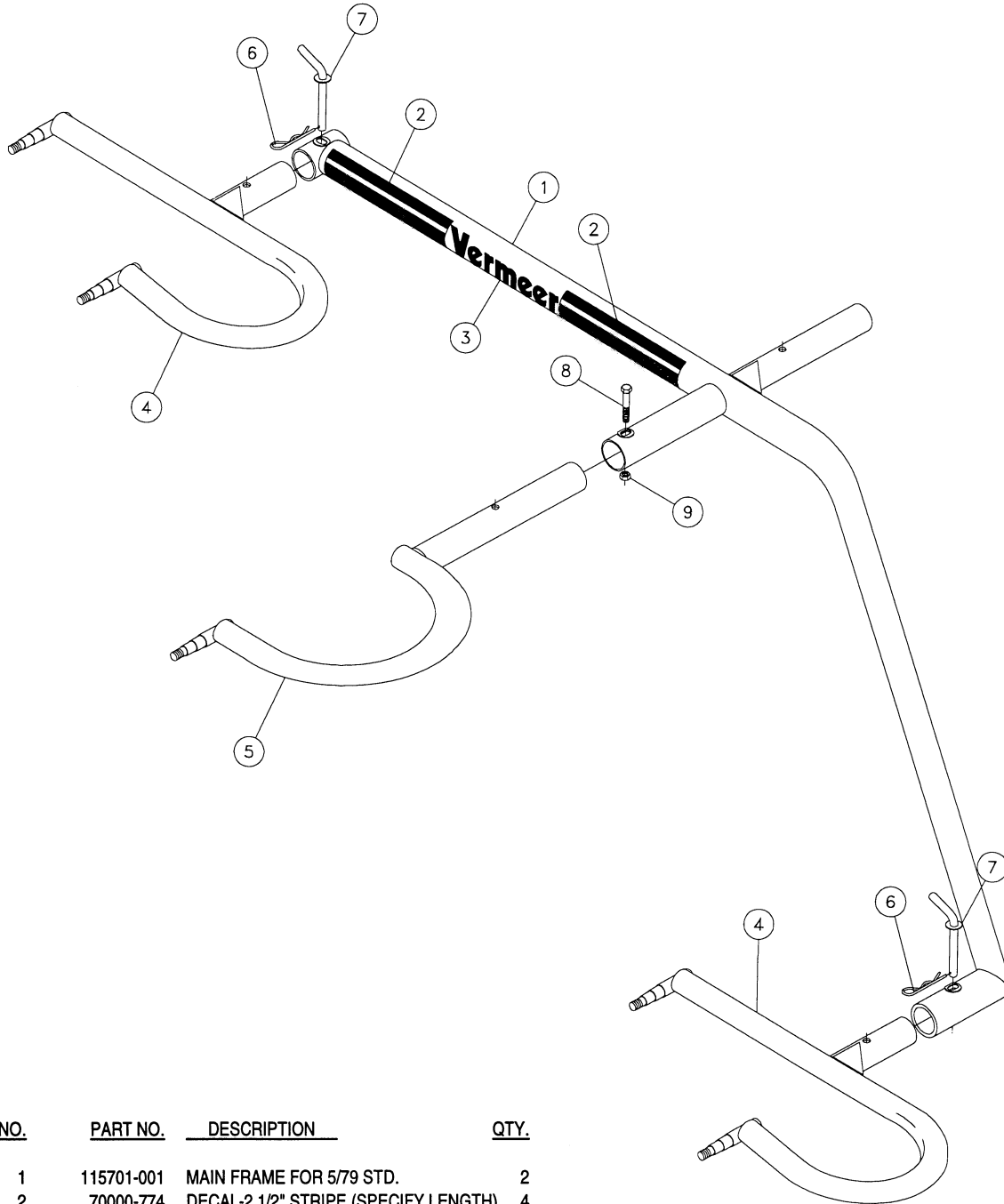


<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1-3	1	115660-001 MAIN FRAME FOR P4/74 STD.	2
1-3	2	+ DECAL-2 1/2" STRIPE-14 3/4"	4
1-3	3	2326-621 DECAL- VERMEER 2 3/8" X 11 7/8"	2
1-3	4	115661-001 RAKE WHEEL ARM(RIGHT HAND)	2
1-3	4	115662-001 RAKE WHEEL ARM L.H. (SHOWN)	2
1-3	5	*130854-001 PIN-5/8X3.25 V.L. 45 DEG. BENT	4
1-3	6	*1793-005 HAIR PIN COTTER-.125 WIRE	4
	+70000-774	DECAL 2 1/2" STRIPE (SPECIFY LENGTH)	

MAIN FRAME ASSEMBLY - 5 WHEEL

Figure 1-4

Revised June 2000 due to update  
in parts list. Changed parts marked with \*.

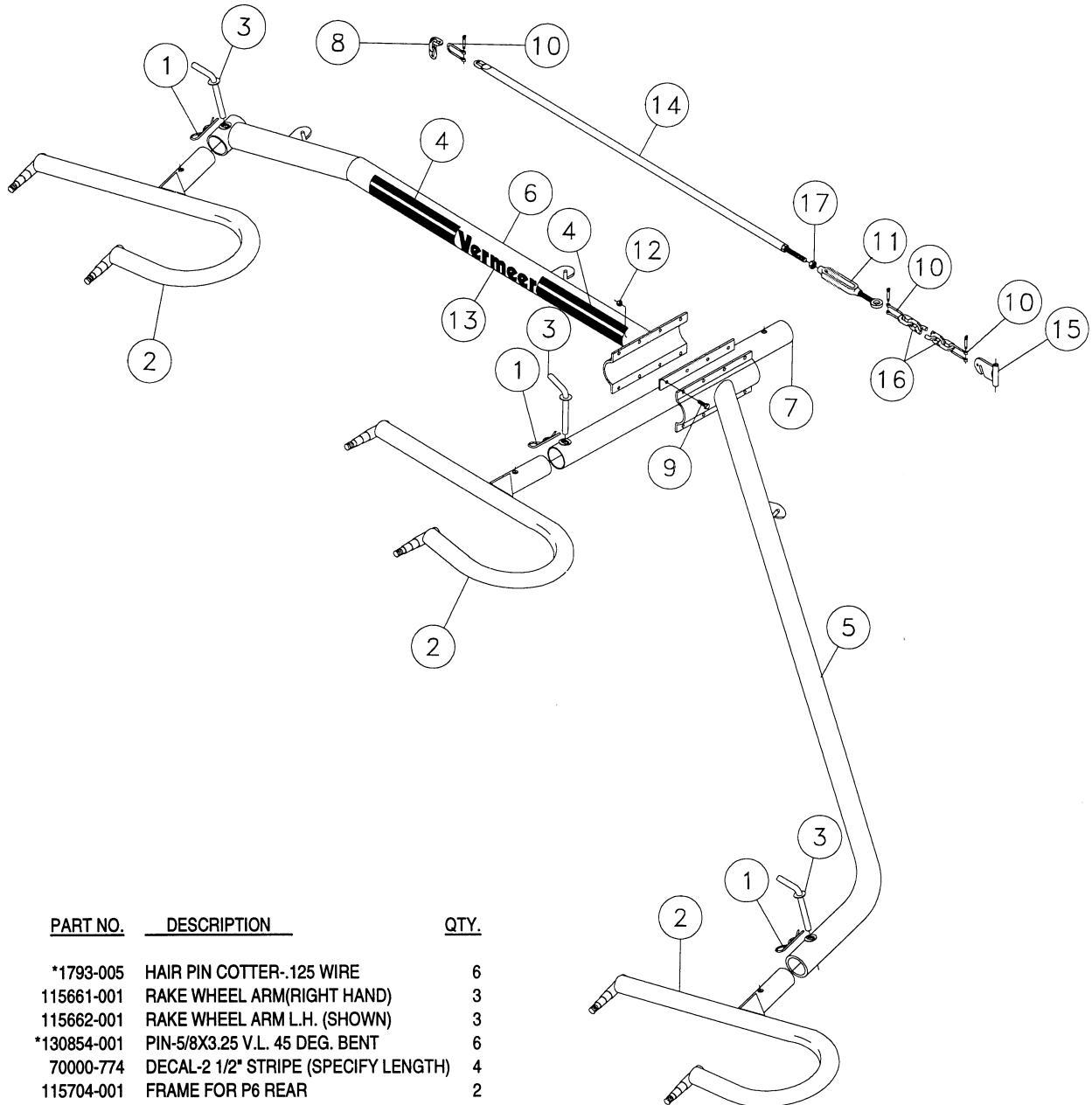


REF. NO.	PART NO.	DESCRIPTION	QTY.
1-4	1	115701-001 MAIN FRAME FOR 5/79 STD.	2
1-4	2	70000-774 DECAL-2 1/2" STRIPE (SPECIFY LENGTH)	4
1-4	3	2326-621 DECAL- VERMEER 2 3/8" X 11 7/8"	2
1-4	4	115661-001 RAKE WHEEL ARM(RIGHT HAND)	2
		115662-001 RAKE WHEEL ARM L.H. (SHOWN)	2
1-4	5	115702-001 ARM FOR 5TH RAKE WHEEL RH	1
		115703-001 ARM FOR 5TH RAKE WHEEL L.H. (SHOWN)	1
1-4	6	*1793-005 HAIR PIN COTTER.125 WIRE	4
1-4	7	*130854-001 PIN-5/8X3.25 V.L. 45 DEG. BENT	4
1-4	8	506034-080 SCREW-HCS,M12-1.75X80, 8.8, YZ,D931,PT	2
1-4	9	*575-001 NUT-HEX M12-1.75 CL8 YZ D934	2

MAIN FRAME ASSEMBLY - 6 WHEEL

Figure 1-5

Revised June 2000 due to update  
in parts list. Changed parts marked with \*.



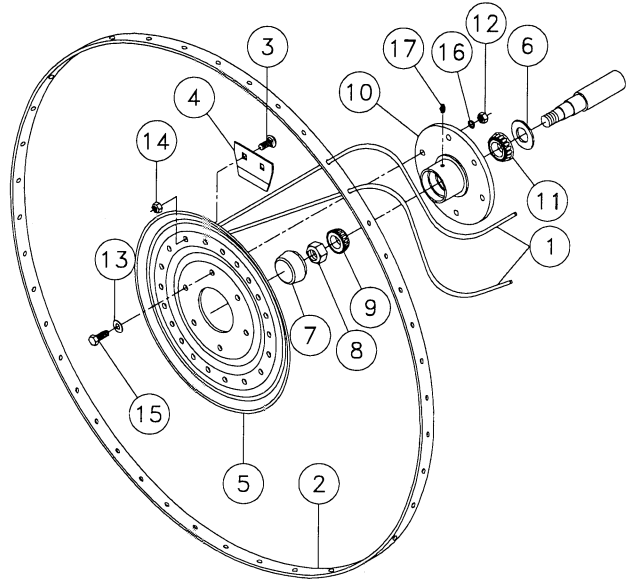
REF. NO.	PART NO.	DESCRIPTION	QTY.
1-5	1	*1793-005 HAIR PIN COTTER-.125 WIRE	6
1-5	2	115661-001 RAKE WHEEL ARM(RIGHT HAND)	3
		115662-001 RAKE WHEEL ARM L.H. (SHOWN)	3
1-5	3	*130854-001 PIN-5/8X3.25 V.L. 45 DEG. BENT	6
1-5	4	70000-774 DECAL-2 1/2" STRIPE (SPECIFY LENGTH)	4
1-5	5	115704-001 FRAME FOR P6 REAR	2
1-5	6	115705-001 FRAME FOR P6 FRONT	2
1-5	7	115706-001 FRAME FOR P6 CENTRAL	2
1-5	8	115707-001 CHAIN ZINCED	2
1-5	9	506033-030 SCREW-HCS,M10-1.50X30, 8.8, YZ, D933	16
1-5	10	115709-001 ZINCED SHACKLES	6
1-5	11	115654-001 ZINCED TURNBUCKLE M14	2
1-5	12	506044-010 NUT-HEX T.L., M10-1.50, YZ, D980V	16
1-5	13	2326-621 DECAL-VERMEER 2 3/8" X 11 7/8"	2
1-5	14	121461-001 TRUSS LINK	2
1-5	15	121462-001 CHAIN ANCHOR	2
1-5	16	115707-001 CHAIN ZINCED	2
1-5	17	16469-001 NUT	1

**WHEEL & HUBS ASSEMBLY**

Figure 1-6

Revised February 2000 due to update in parts list. Changed parts marked with \*.

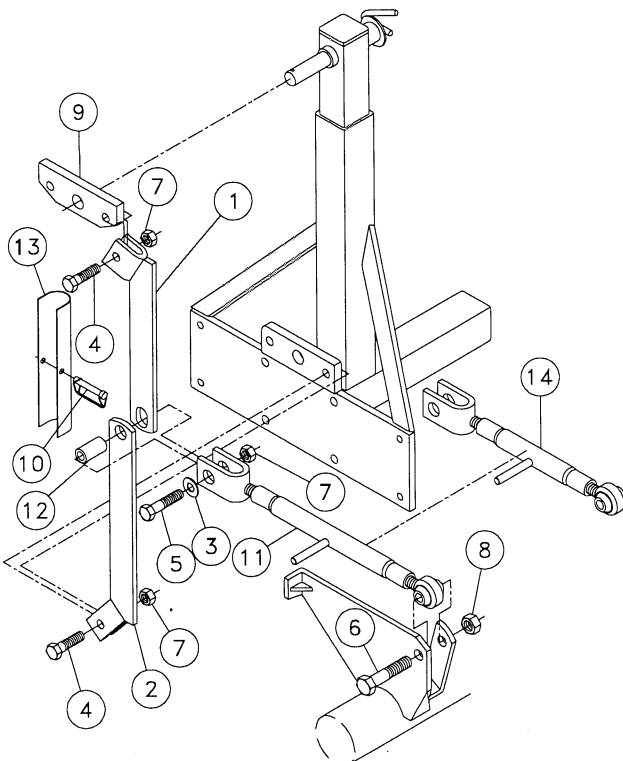
REF. NO.	PART NO.	DESCRIPTION	QTY.
1-6	1	115663-001 TINE STRAIGHT	40
1-6	2	115664-001 HOOP	1
1-6	3	115665-001 CAP SCREW M10X21	20
1-6	4	115667-001 CLIP	10
1-6	5	115668-001 FLANGE	1
1-6	6	115669-001 STEEL BLANK WASHER	1
1-6	7	115670-001 CAP FOR HUB D.47	1
1-6	8	115671-001 SELF LOCKING NUT	1
1-6	9	115672-001 BEARING	1
1-6	10	115673-001 HUB ONLY	1
1-6	11	115674-001 BEARING	1
1-6	12	*61656-001 NUT-HEX, M10-1.50 CL8 YZ D934	6
1-6	13	*506046-010 WASHER-FLAT, M10, YZ, D125A	6
1-6	14	*506044-010 NUT-HEX T.L. M10-1.50, YZ, D980V	20
1-6	15	*506033-025 SCREW-HCS, M10-1.50X25 8.8 YZ	6
1-6	16	*506047-010 WASHER-LOCK, M10, YZ, D127B	6
1-6	17	501723-001 GREASER-M10X1	1
	121465-001	WHEEL ASSEMBLY-COMplete R.H. (SHOWN) (INC. REF. 1-5 & 14)	
	121466-001	WHEEL ASSEMBLY-COMplete L.H. (INC. REF. 1-5 & 14)	



**HYDRAULIC LIFT LINKAGE ASSEMBLY**

Figure 1-7

Revised February 2000 due to update in parts list. Changed/added parts marked with \*.



REF. NO.	PART NO.	DESCRIPTION	QTY.
1-7	1	115677-001 ARM PANTOGR. UPPER	2
1-7	2	115678-001 ARMS PANTOGR. LOWER	2
1-7	3	*506046-016 WASHER-FLAT, M16, YZ, D125A	4
1-7	4	*506037-055 SCREW-HCS, M16-2.00X55, 8.8 YZ	4
1-7	5	*506037-070 SCREW-HCS, M16-2.00X70, 8.8, YZ	2
1-7	6	*506039-090 SCREW-HCS, M20,2.50X90, 8.8, YZ	2
1-7	7	*506044-016 NUT-HEX T.L. M16-2.00, YZ, D980V	6
1-7	8	*506044-020 NUT-HEX T.L., M20-2.50, YZ, D980V	2
1-7	9	121468-001 CONNECTING LINK	1
1-7	10	115684-001 PIN/LOCK DIAM. 8L.60	1
1-7	11	115685-001 TURNBUCKLE ZINCED (WR-22/WR-24)	2
	121469-001	TURNBUCKLE ZINCED (WR-20)	2
1-7	12	115686-001 BUSHING	2
1-7	13	*122051-001 STOP-CYLINDER	1
1-7	14	*507684-001 TURNBUCKLE-SHORT (OPT.)	2
	AK01-311	NARROW WINDROW WIDTH ADJUSTMENT KIT (INC. TWO OF REF. 14)	

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WR-20/WR-22/WR-24 WHEEL RAKE (1-7A)

PULL TYPE HITCH ASSEMBLY (WR-20 PRIOR TO SN 5424)  
(WR-22 PRIOR TO SN 2151) (WR-24 PRIOR TO SN 499)

Revised November 2002 due to  
update to this figure.

Figure 1-8

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>SERIAL NO.</u>	<u>REMARKS</u>
1-8	1	115688-001	STAND FOR DRAWBAR	1	
1-8	2	115689-001	DRAWBAR	1	
1-8	3	115691-001	SUPPORT GROUND WHEEL LH	1	
1-8	4	1443-017	CHAIN-1/4" P4X59.2 SAFETY	1	
1-8	5	115692-001	CYLINDER GUIDE ZINCED	1	
1-8	6	115693-001	TOOLBAR 8 WITH RAKE	1	
		115694-001	TOOLBAR 10 WITH RAKE	1	
		115695-001	TOOLBAR 12 WITH RAKE	1	
1-8	7	115696-001	U BRACKET ZINCED M12X102	4	
1-8	8	506046-012	WASHER-FLAT, M12, YZ, D125A	4	
1-8	9	575-001	NUT-HEX, M12-1.75, YZ, D934	12	
1-8	10	115690-001	SUPPORT GROUND WHEEL RH	1	
1-8	11	115724-001	PIN FOR STAND	1	
1-8	12	115658-001	SPLIT PIN RD.2.5	1	
1-8	13	506037-045	SCREW-HCS, M16-2.00X45, 8.8, CL8, YZ	2	
1-8	14	121470-001	HITCH-DRAWBAR	1	
1-8	15	70000-927	DECAL-TRANSPORT LOCK	1	
1-8	16	2326-940	DECAL-NOTICE TO OWNERS	1	
1-8	17	70000-926	DECAL-WARNING	1	
1-8	18	2326-949	DECAL-WARNING	1	
1-8	19	70000-922	DECAL-MODEL WR-20	2	
		70000-923	DECAL-MODEL WR-22	2	
		70000-924	DECAL-MODEL WR-24	2	
1-8	20	115699-001	SCREW-TE M14X140	4	
1-8	21	506044-014	NUT-HEX TL, M14-2.00, YZ	4	
1-8	22	70000-722	DECAL-AMBER REFLECTOR	2	
		7000B-069	DECAL-AMBER REFLECTOR (WR-24 SN 449 & UP)	2	
1-8	23	70000-170	DECAL-RED REFLECTIVE	2	
		7000B-068	DECAL-RED REFLECTOR (WR-20 SN 4375 & UP) (WR-22 SN 1801 & UP)	2	
1-8	24	114676-001	PLATE-REFLECTOR	2	
1-8	25	115725-001	SUPPORT FOR CYLINDER STAND	1	
1-8	26	121471-001	PLATE	2	
1-8	27	*507407-140	SCREW-HCS, M12-1.75X140, 10.9, YZ	12	
1-8	28	64108-001	WASHER-M12 LOCK	12	
1-8	29	506044-016	NUT-HEX TL, M16-2.00, YZ	2	
1-8	30	7000A-551	DECAL-LUBE CHART (COMMON)	1	
1-8	31	7000B-504	DECAL-PATENT	1	





**WR-20/WR-22/WR-24 WHEEL RAKE (1-7C)**

**PULL TYPE HITCH ASSEMBLY (WR-20 STARTING W/SN 5424)  
(WR-22 STARTING W/SN 2151) (WR-24 STARTING W/SN 499)**

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update to this figure.

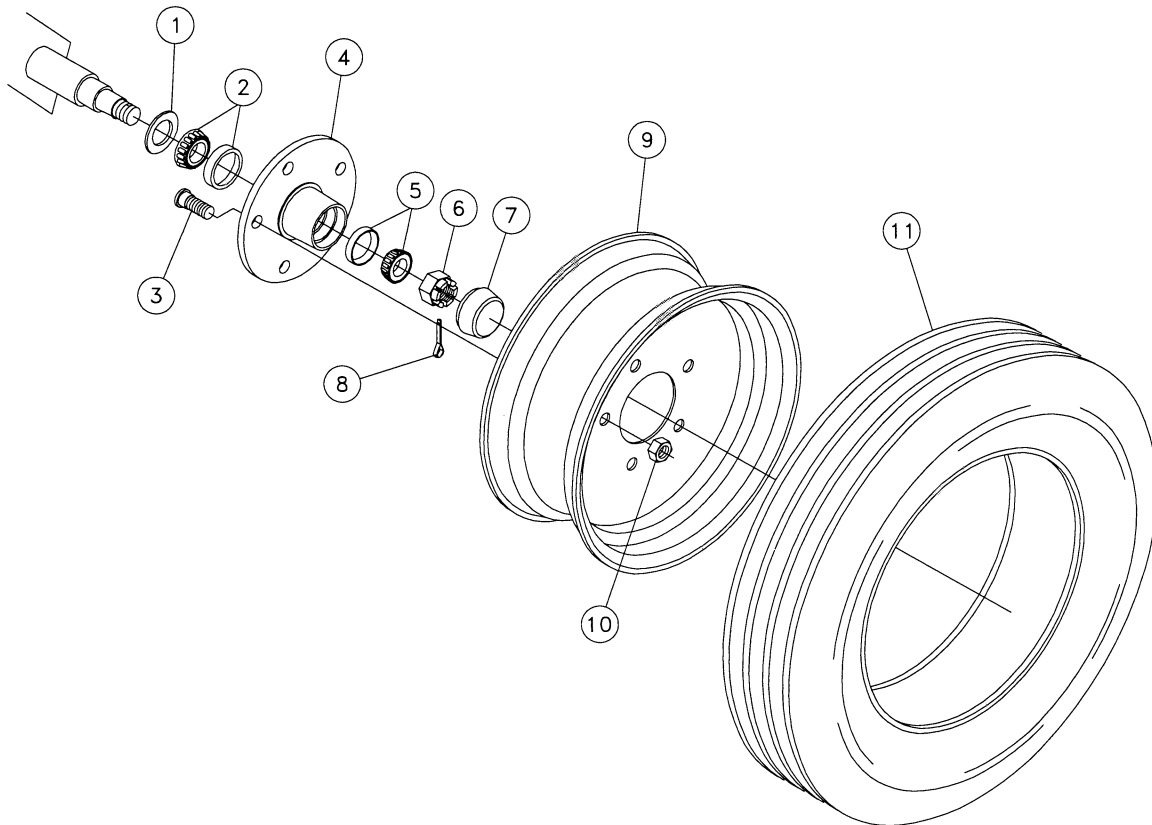
Figure 1-8A

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>SERIAL NO.</u>	<u>REMARKS</u>
1-8A 1	115688-001	STAND FOR DRAWBAR	1		
1-8A 2	115689-001	DRAWBAR	1		
1-8A 3	115691-001	SUPPORT GROUND WHEEL LH	1		
1-8A 4	1443-017	CHAIN-1/4" P4X59.2 SAFETY	1		
1-8A 5	115692-001	CYLINDER GUIDE ZINCED	1		
1-8A 6	115693-001	TOOLBAR 8 WITH RAKE	1		
	115694-001	TOOLBAR 10 WITH RAKE	1		
	115695-001	TOOLBAR 12 WITH RAKE	1		
1-8A 7	7000B-504	DECAL-PATENT	1		
1-8A 8	506046-012	WASHER-FLAT, M12, YZ, D125A	4		
1-8A 9	575-001	NUT-HEX, M12-1.75, YZ, D934	8		
1-8A 10	115690-001	SUPPORT GROUND WHEEL RH	1		
1-8A 11	115724-001	PIN FOR STAND	1		
1-8A 12	115658-001	SPLIT PIN RD.2.5	1		
1-8A 13	506037-045	SCREW-HCS, M16-2.00X45, 8.8, CL8, YZ	2		
1-8A 14	121470-001	HITCH-DRAWBAR	1		
1-8A 15	70000-927	DECAL-TRANSPORT LOCK	1		
1-8A 16	2326-940	DECAL-NOTICE TO OWNERS	1		
1-8A 17	70000-926	DECAL-WARNING	1		
1-8A 18	2326-949	DECAL-WARNING	1		
1-8A 19	70000-922	DECAL-MODEL WR-20	2		
	70000-923	DECAL-MODEL WR-22	2		
	70000-924	DECAL-MODEL WR-24	2		
1-8A 20	508477-140	SCREW-HCS M14X140, 10.9, YZ	4		
1-8A 21	506044-014	NUT-HEX TL, M14-2.00, YZ	4		
1-8A 22	70000-722	DECAL-AMBER REFLECTOR	2		
	7000B-069	DECAL-AMBER REFLECTOR (WR-24 SN 449 & UP)	2		
1-8A 23	70000-170	DECAL-RED REFLECTIVE	2		
	7000B-068	DECAL-RED REFLECTOR (WR-20 SN 4375 & UP) (WR-22 SN 1801 & UP)	2		
1-8A 24	114676-001	PLATE-REFLECTOR	2		
1-8A 25	115725-001	SUPPORT FOR CYLINDER STAND	1		
1-8A 26	121471-001	PLATE	2		
1-8A 27	507407-140	SCREW-HCS, M12-1.75X140, 10.9, YZ	12		
1-8A 28	64108-001	WASHER-M12 LOCK	16		
1-8A 29	506044-016	NUT-HEX TL, M16-2.00, YZ	2		
1-8A 30	7000A-551	DECAL-LUBE CHART (COMMON)	1		

TIRE AND WHEEL ASSEMBLY

Figure 1-9

Revised November 2000 due to addition of axle seal to WR-20 & WR-22. Added part marked with \*.



<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1-9	1	115714-001 STEEL BLANK WASHER	2
1-9	2	115718-001 BEARING	2
	*115714-002	SEAL-AXLE (WR-20 STARTING W/ SN4935) (WR-22 STARTING W/SN2100)	2
1-9	3	115720-001 BOLT-HUB 16X45	10
1-9	4	115717-001 HUB FOR WHEEL (INC. REF. 2&5)	1
1-9	5	115723-001 BEARING	2
1-9	6	115722-001 NUT-MB22	2
1-9	7	115715-001 CAP FOR HUB	2
1-9	8	115721-001 SPLIT PIN M6X40	2
1-9	9	122429-001 RIM-175/70 X 14 4J X 14"	2
1-9	10	115697-001 NUT-16MB X 27 X 21	10
1-9	11	122430-001 TIRE-ST175/70 X R14	2
	122431-001	TIRE ASSEMBLY-4J X 14" (INC. REF. 9 & 11)	

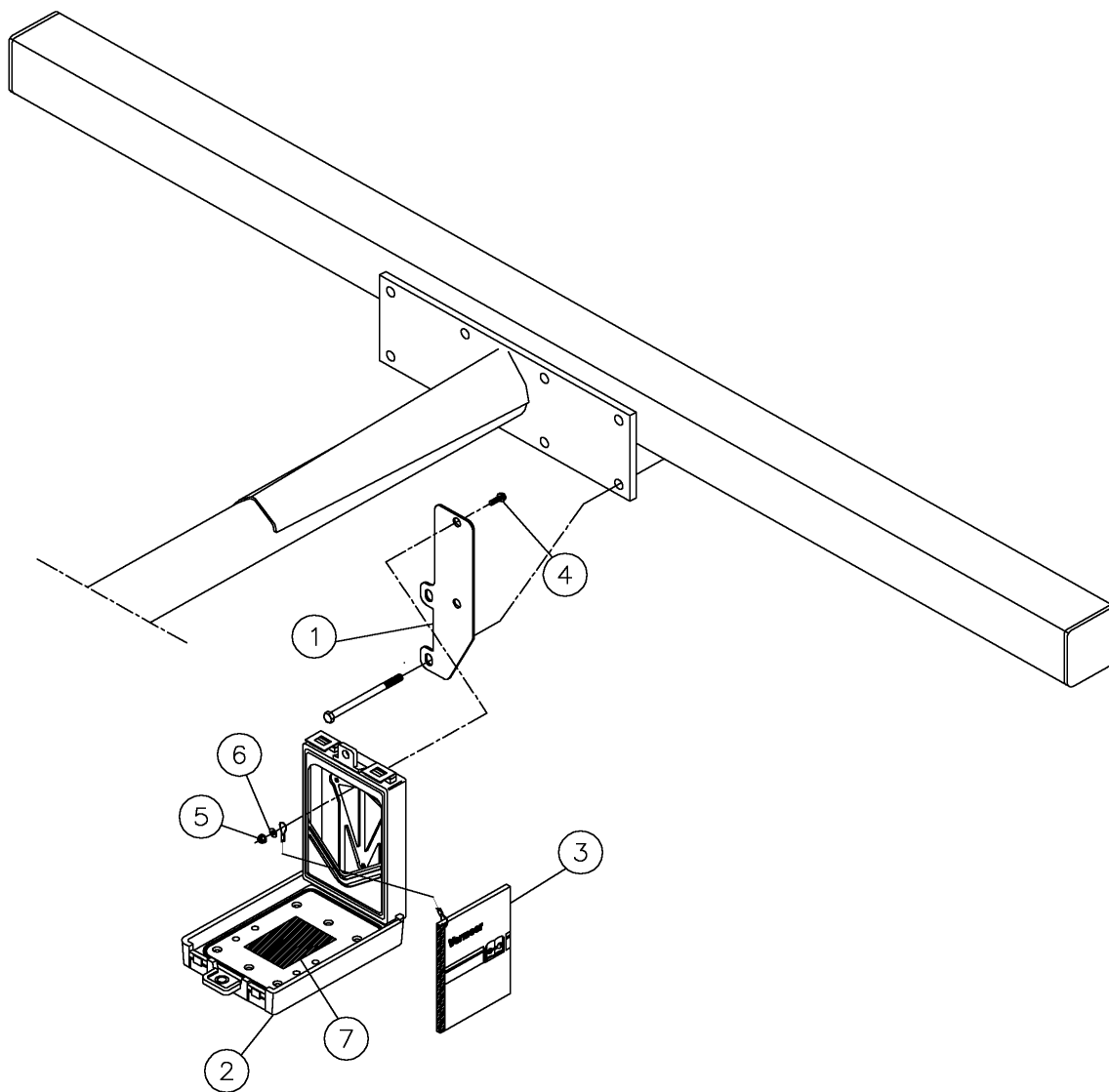
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**(PAGE 1-9) WR-20/WR-22/WR-24 WHEEL RAKE**

**MANUAL BOX ASSEMBLY (WR20 S/N 9245 & UP)  
(WR-22 S/N 3531 & UP) (WR-24 S/N 719 & UP)**

CREATED AUGUST, 2003 DUE TO  
ADDITION OF LISTED ITEMS

Figure 1-10



WR-20 STARTING W/SER. NO. 9245 & UP  
WR-22 STARTING W/SER. NO. 3531 & UP  
WR-24 STARTING W/SER. NO. 719 & UP

**WR-20/WR-22/WR-24 WHEEL RAKE (1-9A)**

**MANUAL BOX ASSEMBLY (WR20 S/N 9245 & UP)  
(WR-22 S/N 3531 & UP) (WR-24 S/N 719 & UP)**

CREATED AUGUST, 2003 DUE TO  
ADDITION OF LISTED ITEMS

Figure 1-10

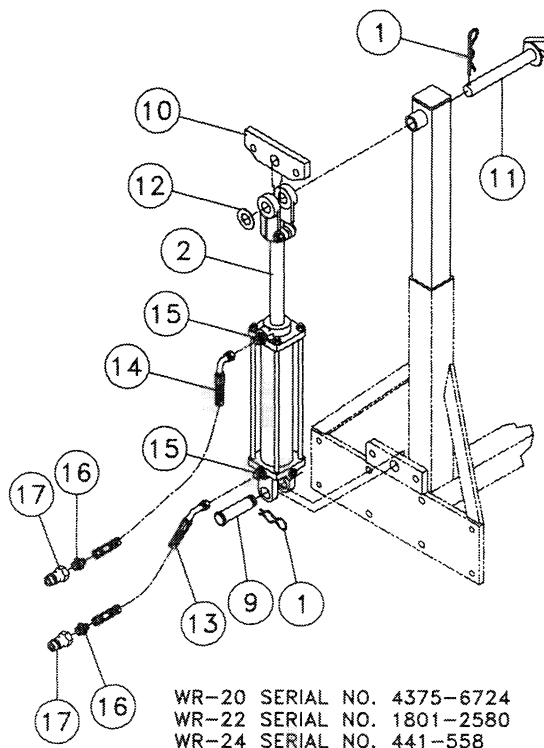
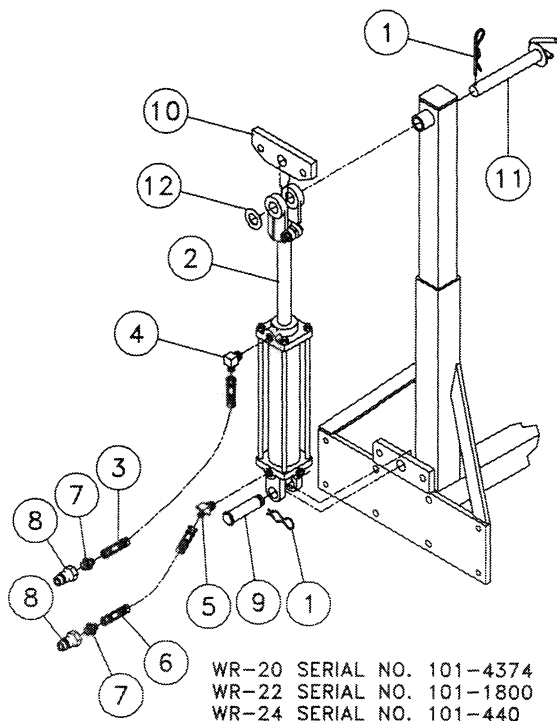
<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>SERIAL NO.</u>	<u>REMARKS</u>
1-10	1	510502-816	PLATE- MOUNTING	1	
1-10	2	142410-001	CASE-6"X9"X1" OPERATOR MANUAL	1	
1-10	3	510502-817	WR20/22/24 MINI OPERATORS HANDBOOK ASSY.	1	
1-10	4	506031-035	SCREW-HCS,M6-1.00X35,8.8,YZ,D931,PT	2	
1-10	5	128478-001	NUT-HEX NYL M6-1.00 YZ D985	2	
1-10	6	506046-006	WASHER-FLAT,M6,YZ,D,125A	2	
1-10	7	2326-940	DECAL-NOTICE TO OWNERS	1	

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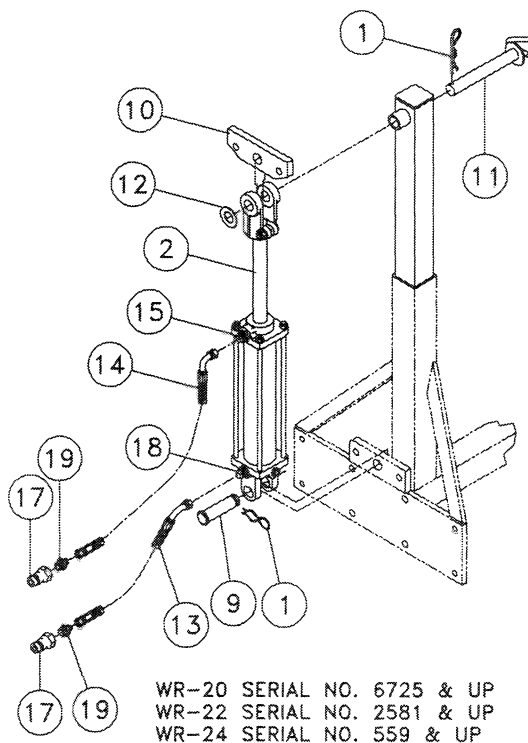
HYDRAULIC CYLINDER ASSEMBLY

Revised September 2001 due to update in illustration & parts list. Added items marked with \*.

Figure 2-1



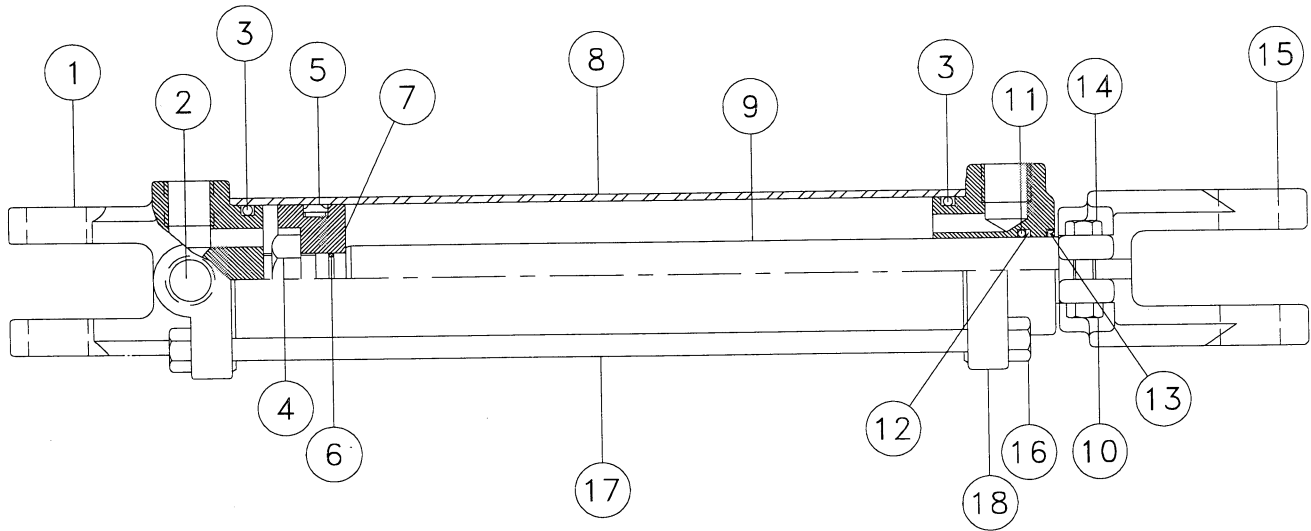
REF. NO.	PART NO.	DESCRIPTION	QTY.
2-1	1	SPLIT PIN	2
2-1	2	CYLINDER-2.5X10" W/1 1/8" ROD (BREAKDOWN FIG. 2-2) (INC. REF. 1 & 9)	1
	506276-001	CYLINDER-2.5X10" OPEN WR20 SERIES (BREAKDOWN FIG. 2-2) (INC. REF. 1 & 9) (WR-20 SN4375 & UP) (WR-22 SN1801 & UP) (WR-24 SN441 & UP)	1
2-1	3	HOSE-3/8 X 126 6FS JIC	1
2-1	4	1/2M X 6M JIC 90 ELBOW	1
2-1	5	60928-001 1/2M X 6M JIC 45 DEG ELBOW	1
2-1	6	57940-167 HOSE-3/8 X 112 6FS JIC (100R1)	1
2-1	7	500086-001 FITTING-1/2M ORB X 6M JIC/R.062	2
2-1	8	500085-001 HYD. COUPLER-POPPET STYLE	2
2-1	9	114671-023 CYLINDER PIN (INCL. REF. 1)	1
2-1	10	121468-001 CONNECTING LINK	1
2-1	11	115679-001 TOP CYLINDER PIN	1
2-1	12	115669-001 STEEL BLANK WASHER 25.5 X 51 X 2.5	1
2-1	13	506280-003 HOSE-3/8X110 6FS 45	1
2-1	14	506280-004 HOSE-3/8X124 6FS 90	1
2-1	15	57947-001 FITTING-3/8M X 6M JIC	2
2-1	16	506280-001 FITTING-1/2M NPT-6M JIC .06 ORIFICE	2
2-1	17	506280-005 FITTING-QUICK COUPLER 1/2" FACE	2
2-1	18	510501-203 FITTING-STR.-6MX6M JIC/R.062	1
2-1	19	60247-001 FITTING-8M O-RINGX6M JIC ST.	1



HYDRAULIC CYLINDER COMPONENTS - 2 1/2" X 10"

Figure 2-2

Revised June 2000 due to update  
in parts list. Added part marked with \*.



REF. NO.	PART NO.	DESCRIPTION	QTY.	REF. NO.	PART NO.	DESCRIPTION	QTY.
2-2	1	114671-005 BOTTOM CLEVIS	1	2-2	14	354-016 BOLT-3/8"-16X1 3/4"GR 5 HEX	1
		114671-029 BOTTOM CLEVIS-(WR-20 SN4375 & UP)		2-2	15	114671-017 ROD CLEVIS	1
		(WR-22 SN1801 & UP) (WR-24 SN441)		2-2	16	418-001 NUT-7/16" NC HEX	8
2-2	2	735-003 1/2" COUNTERSUNK PIPE PLUG	2	2-2	17	114671-019 TIE ROD	4
		*732-005 PLUG-3/8" COUNTERSUNK PIPE (WR-20		2-2	18	114671-021 GUIDE	1
		SN4375 & UP) (WR-22 SN1801 & UP)				114671-027 GUIDE- (WR-20 SN4375 & UP) (WR-22	1
		(WR-24 SN441 & UP)	2			SN1801 & UP) (WR-24 SN441)	1
2-2	3	78431-001 O-RING 2 1/8"IDX2 1/2"OD	2			114671-001 CYLINDER-2.5X10 W/1 1/8" ROD	
2-2	4	114671-007 NUT-7/8"-14 JAM	1			(INC. REF. 1-18)	
2-2	5	114671-009 DURA-PAK 2 1/2" BORE	1			506276-001 CYLINDER-2.50X10" OPEN WR20 SERIES	
2-2	6	13071-019 O-RING 3/4"IDX7/8"OD	1			(INC. REF. 1-18) (WR-20 SN4375 & UP),	
2-2	7	114671-011 PISTON	1			(WR-22 SN1801 & UP) (WR-24 SN441 & UP)	
2-2	8	114671-013 WALL	1			114671-003 REPAIR KIT-2 1/2"X10 CYLINDER	
2-2	9	114671-015 ROD-PISTON	1			(INC. REF. 3, 5, 6 & 11-13)	
2-2	10	412-001 NUT-3/8" NC HEX	1			*506280-006 SEAL KIT-CYLINDER 2.5X10 (INC. REF.	
2-2	11	28021-009 O-RING 1 1/8"IDX1 3/8"OD	1			3,5,6 & 11-13) (WR-20 SN4375 & UP),	
2-2	12	51273-001 BACKUP WASHER	1			(WR-22 SN1801 & UP) (WR-24 SN441 & UP)	
2-2	13	303-011 WIPER-ROD	1				



<u>FIG. NO.</u>	<u>PART NO.</u>	<u>FIG. NO.</u>	<u>PART NO.</u>	<u>FIG. NO.</u>	<u>PART NO.</u>
2-2	13	303-011	1-8	13	115636-001
2-2	14	354-016	1-2	13	115637-001
2-2	10	412-001	1-2	14	115638-001
2-2	16	418-001	1-7	8	115638-001
2-1	4	730-003	1-2	15	115639-001
2-1	8	731-009	1-2	16	115640-001
2-2	2	735-003	1-5	12	115640-001
1-8	4	1443-017	1-2	17	115641-001
1-1	1	2326-621	1-8	8	115641-001
1-3	3	2326-621	1-2	5	115642-001
1-4	3	2326-621	1-2	4	115643-001
1-5	13	2326-621	1-2	19	115644-001
1-1	2	2326-940	1-3	6	115644-001
1-8	16	2326-940	1-4	6	115644-001
1-1	3	2326-949	1-5	1	115644-001
1-8	18	2326-949	2-1	1	115644-001
2-2	6	13071-019	1-2	21	115645-001
1-6	16	13625-001	1-2	22	115646-001
1-6	13	20779-001	1-2	23	115647-001
2-2	11	28021-009	1-2	3	115648-001
2-2	12	51273-001	1-2	20	115650-001
2-1	6	57940-167	1-2	18	115651-001
2-1	5	60928-001	1-2	6	115653-001
1-2	24	64108-001	1-5	11	115654-001
1-8	28	64108-001	1-3	5	115656-001
1-8	19	70000-022	1-4	7	115656-001
1-8	19	70000-023	1-5	3	115656-001
1-8	19	70000-024	1-8	12	115658-001
1-1	4	70000-170	1-3	1	115660-001
1-8	23	70000-170	1-3	4	115661-001
1-1	5	70000-722	1-4	4	115661-001
1-8	22	70000-722	1-5	2	115661-001
1-1	6	70000-774	1-3	4	115662-001
1-3		70000-774	1-4	4	115662-001
1-4		70000-774	1-5	2	115662-001
1-1	7	70000-922	1-6	1	115663-001
1-1	10	70000-923	1-6	2	115664-001
1-1	11	70000-924	1-6	3	115665-001
1-1	8	70000-926	1-6	14	115666-001
1-8	17	70000-926	1-6	4	115667-001
1-1	9	70000-927	1-6	5	115668-001
1-8	15	70000-927	1-6	6	115669-001
2-2	3	78431-001	1-6	7	115670-001
2-1	3	81134-001	1-6	8	115671-001
1-4	8	111490-001	1-6	9	115672-001
1-9	11	114670-001	1-6	10	115673-001
2-1	2	114671-001	1-6	11	115674-001
2-2		114671-001	1-7	1	115677-001
2-2		114671-003	1-7	2	115678-001
2-2	1	114671-005	2-1	11	115679-001
2-2	4	114671-007	1-7	5	115680-001
2-2	5	114671-009	1-7	6	115681-001
2-2	7	114671-011	1-7	7	115682-001
2-2	8	114671-013	1-7	10	115684-001
2-2	9	114671-015	1-7	11	115685-001
2-2	15	114671-017	1-7	12	115686-001
2-2	17	114671-019	1-7	13	115687-001
2-2	18	114671-021	1-8	1	115688-001
2-1	9	114671-023	1-8	2	115689-001
1-8	24	114676-001	1-8	10	115690-001
1-2	1	115625-001	1-8	3	115691-001
1-2	3	115627-001	1-8	5	115692-001
1-2	4	115628-001	1-8	6	115693-001
1-2	5	115629-001	1-8	6	115694-001
1-2	7	115631-001	1-8	6	115695-001
1-8	27	115631-001	1-8	7	115696-001
1-2	9	115633-001	1-9	10	115697-001
1-7	4	115633-001	1-9	9	115698-001
1-2	10	115634-001	1-8	20	115699-001
1-2	11	115635-001	1-8	21	115700-001
1-2	12	115636-001	1-4	1	115701-001
1-4	9	115636-001	1-4	5	115702-001
1-8	9	115636-001	1-4	5	115703-001

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