

Box 307 VONDA, Saskatchewan SOK 4NO 306-258-2233

TO THE OWNER:

Congratulations on the purchase of your new LAURIER SPRAYER KIT.

Constructed of the finest quality materials, your LAURIER SPRAYER KIT is engineered and designed to do normal spraying operations effectively and efficiently, and to provide you with years of dependable service.

Be sure to read the instructions in this manual for adjusting and operating your LAURIER SPRAYER KIT. A few moments to acquaint yourself with the LAURIER SPRAYER KIT and its maintenace requirements will save you precious time in the field and protect your machinery investment. Should you in time, need replacement parts, please consult the parts list in this manual and contact your LAURIER DEALER.

HIGH LINE MFG. INC.

It is the policy of HIGH LINE MFG. INC. to improve its products whenever it is possible and practical. We reserve the right to make changes or add improvements, at any time, without incurring any obligation to make such changes on machines previously sold.

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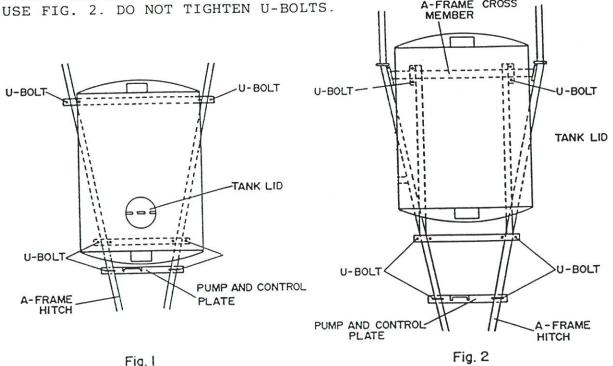


Set-Up Instructions

NOTE: LEFT AND RIGHT DETERMINED FROM REAR OF MACHINE. TO SIMPLIFY SET-UP, UNIT MAY BE ASSEMBLED IN WORKING POSITION.

STEP 1:

MOUNT TANK AND SADDLE TO A-FRAME USING FOUR 1/2" x 3" x 7" U-BOLTS. FOR 15 FT. AND 20 FT. A-FRAME WITH 500 GALLON TANK USE FIG. 1, REMEMBERING TO PLACE TANK LID TO FRONT OF MACHINE. 20 FT. A-FRAME WITH 833 GALLON TANK A-FRAME CROSS 1.



STEP 2:
MOUNT PUMP AND PUMP GUARD UNDER A-FRAME AND PLACE PUMP GUARD ON TOP OF FRAME, WITH 1/2" x 3" x 7" U-BOLTS, BOLT PARTS AS SHOWN IN FIG. 3.
NOTE: ON 20 FT. A-FRAME, PUMP MUST BE UNBOLTED SO HYDRAULIC LINES CAN BE SLIPPED BETWEEN PUMP AND CONTROL PLATE. REBOLT PUMP. DO NOT TIGHTEN U-BOLTS.

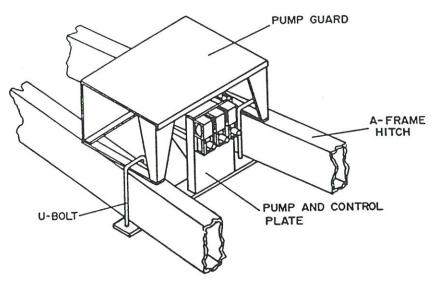


Fig. 3



STEP 3:

THE FOUR NOZZLES FOR HARROW BAR OR HARROW PACKER BAR WITH 11 FT. CENTRE TUBE. MOUNT CENTRE BOOM TO CENTRE BOOM SUPPORT WITH 3/8" x 1 3/4" BOLT AND CLAMP. BOLT CENTRE BOOM SUPPORT TO BRACKETS WELDED ON SADDLES ALSO WITH 3/8" x 1 3/4" BOLTS.

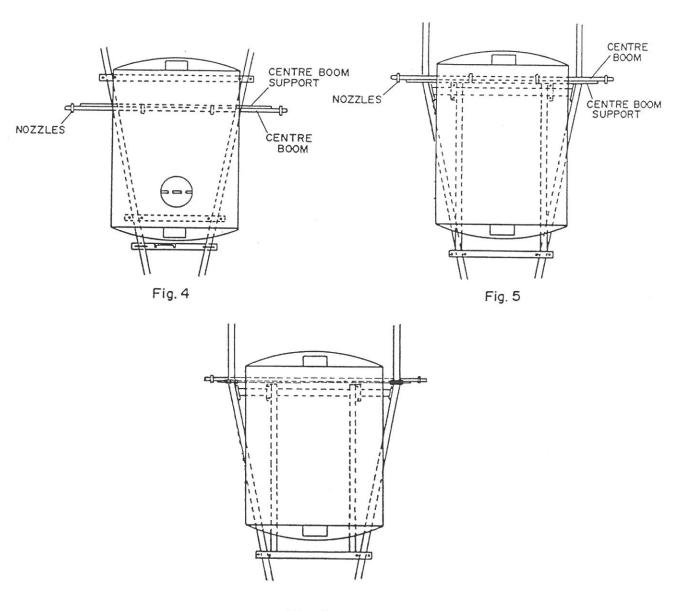
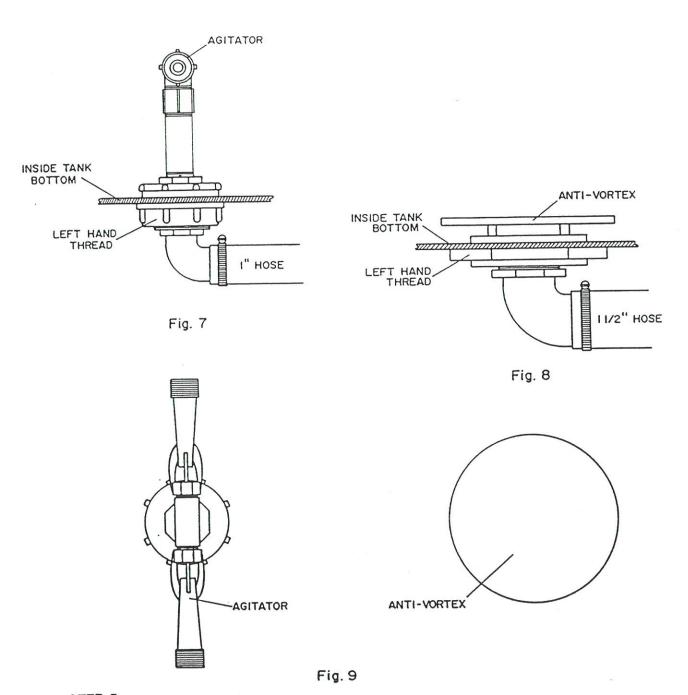


Fig. 6

NOTE: HARROW BAR WITH 15 FT. OR 20 FT. A-FRAME WITH 500 GALLON TANK SEE FIG. 4. HARROW BAR WITH 20 FT. A-FRAME AND A 833 GALLON TANK SEE FIG. 5.



STEP 4:
INSTALL 3/4" AGITATOR ASSEMBLY TO THE INSIDE BOTTOM OF THE TANK., ALSO
INSTALL 2" ANTI-VORTEX TO THE INSIDE BOTTOM OF TANK. REFER TO FIGS. 7
& 8. AGITATOR SHOULD BE POINTED AWAY FROM ANTI-VORTEX AS VIEW FROM TOP
OF TANK FIG. 9 SHOWS. NOTE: LEFT HAND THREAD ON THESE FITTINGS.



STEP 5:

SCREW IN 3/4" x 90° ELBOW IN AGITATOR ASSEMBLY AND ALSO SCREW IN 1 1/2"

x 90° ELBOW INTO ANTI-VORTEX ASSEMBLY. SECURE WITH SILICONE OR TAPE.

BARB ENDS SHOULD BE FACING FRONT OF MACHINE. CONNECT 1" HOSE TO AGITATOR

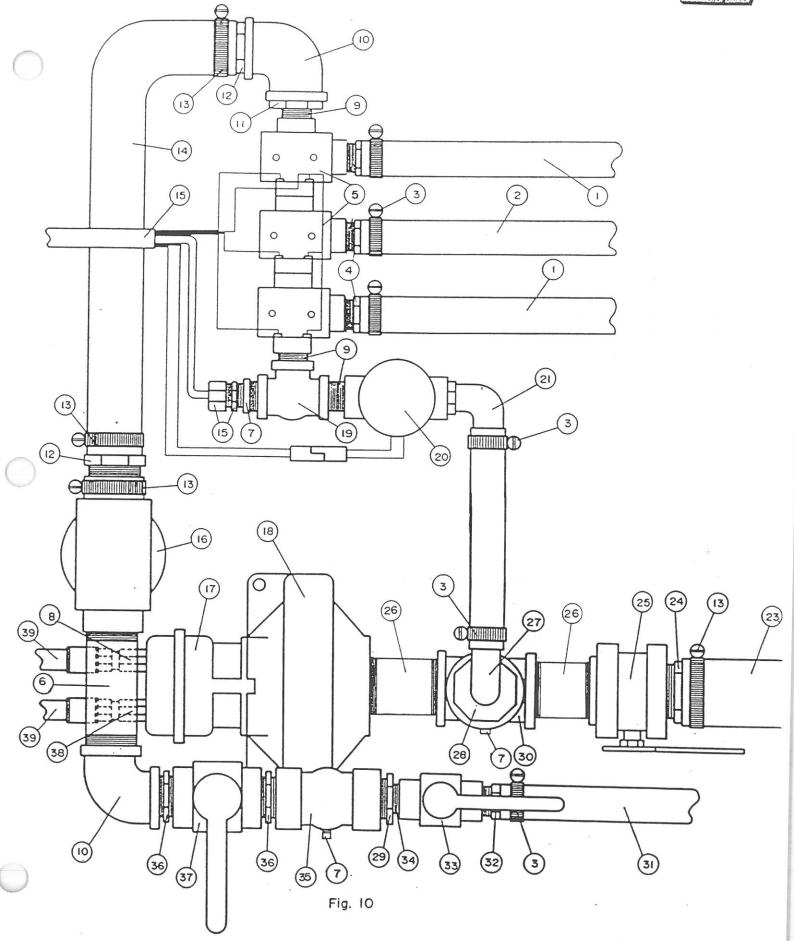
ASSEMBLY PLUS INSTALL 1 1/2" HOSE TO ANTI-VORTEX. REFER TO FIGS. 7 & 8.

WHILE UNDER TANK CONNECT 1" HOSE TO CENTRE BOOM. SECURE ALL ABOVE HOSES

WITH HOSE CLAMPS. NOTE: FOR ABOVE LENGTHS FOR HOSES TURN TO HOSE LENGTH

CHART ON PAGE. FIND RIGHT TANK AND MACHINE AND LENGTHS ARE THEN GIVEN.







STEP 6: CONNECT 1 1/2" HOSE COMING FROM ANTI-VORTEX TO THE 1 1/2" BALL VALVE GOING TO THE PUMP. CONNECT THE 1" HOSE COMING FROM THE AGITATOR TO THE 1" BALL VALVE WHICH LEADS TO THE FILTER. SECURE THE HOSES WITH HOSE CLAMPS. REFER TO FIG.10.

STEP 7:
SECURE 1" HOSE FROM CENTRE BOOM TO THE CENTRE SOLENOID VALVE.
INSTALL 1" HOSE FOR RIGHT HAND BOOM TO THE OUTSIDE SOLENOID VALVE.
ALSO INSTALL 1" HOSE FOR LEFT HAND BOOM TO THE INSIDE SOLENOID VALVE.
ALL SOLENOID VALVES ARE MOUNTED TO THE PUMP AND CONTROL PLATE. REFER
TO FIG.10. SECURE ABOVE HOSES WITH HOSE CLAMPS. FOR RIGHT HOSE LENGTHS
TURN TO HOSE LENGTH CHART PAGE 21. FIND RIGHT TANK AND MACHINE AND
LENGTHS ARE GIVEN.

STEP 8: INSTALL NOZZLE ASSEMBLIES IN RIGHT HAND SPRAYER BOOM. THIS IS DONE BEFORE RIGHT HAND SPRAYER BOOM IS MOUNTED TO THE RIGHT HAND WING TUBE.

STEP 9:
MOUNT WING TUBE CLAMPS TO WING TUBE USING 3/8" x 5 1/4" x 6 1/6" U-BOLTS
THESE CLAMPS ARE MOUNTED APPROXIMATELY AT 48" SPACING. MOUNT SPRAYER
BOOM TO WING TUBES CLAMPS USING 3/8" x 1" BOLT AND SPRAYER BOOM CLAMP.
NOTE: POSITION FIRST SPRAUER NOZZLE ON CENTRE BOOM AS SHOWN IN FIG. 10.
REPEAT STEPS 8 & 9 FOR LEFT HAND BOOM. DO NOT TIGHTEN 3/8" x 1"
BOLTS.

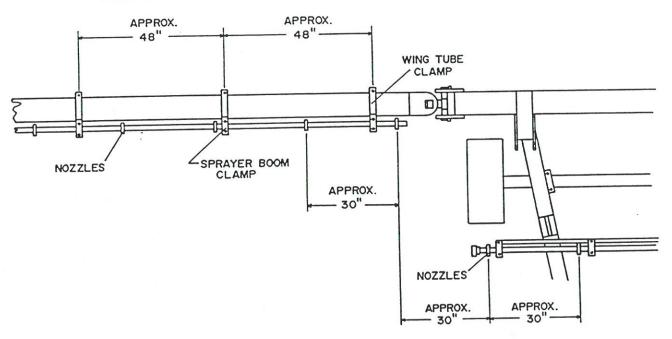
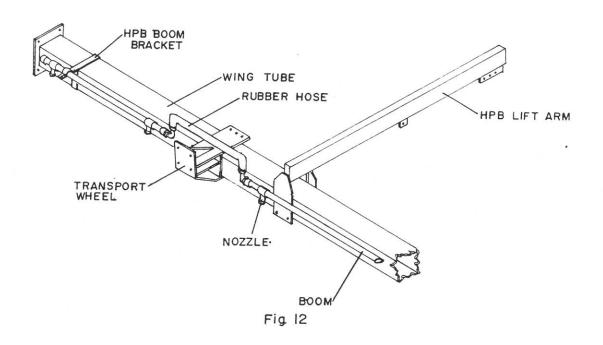


Fig. 11



STEP 10:

HARROW PACKER BAR BOOM ASSEMBLY - connect HPB boom brackets approximately 48" apart with 7/16" x 1 1/4" bolts. There is a hose that goes around the transport wheel as shown below.



STEP 11:

BEFORE TIGHTENING RIGHT, LEFT AND CENTRE SPRAYER BOOMS ROTATE SPRAYER BOOM SO AS TO PALCE SPRAYER NOZZLES AT AN APPROXIMATELY 5° FRONT ANGLE AS SHOWN IN FIG.13. THEN TIGHTEN SPRAYER BOOMS IN PLACE FOR HARROW BAR AND PACKER BAR.

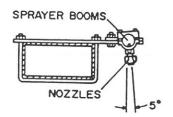
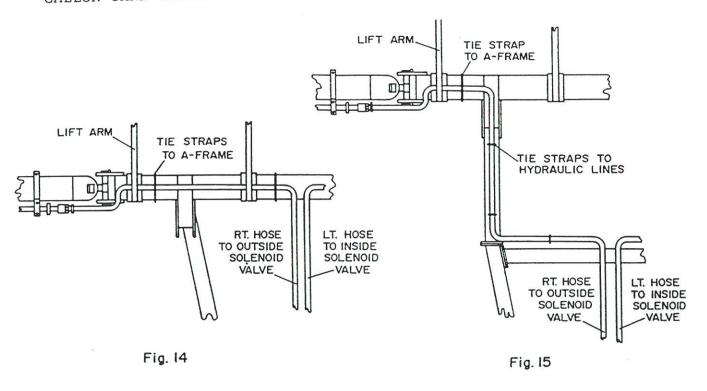


Fig. 13



STEP 12:
CONNECT RIGHT HAND BOOM HOSE FROM OUTSIDE SOLENOID VALVE TO RIGHT HAND BOOM. ALSO CONNECT LEFT HAND BOOM HOSE FROM INSIDE SOLENOID VALVE TO LEFT HAND BOOM. SECURE HOSE TO RIGHT AND LEFT HAND BOOMS WITH HOSE CLAMPS. SECURE 1" HOSE IN PLACE ALONG A-FRAME BY USING THE STRAPS. NOTE: FOR 15 FT. A-FRAME FOLLOW FIG.14 FOR HOSE AND TIE STRAPS PLACEMENT. FOR 20FT. A-FRAME WITH EITHER A 500 GALLON TANK OR 833 GALLON TANK FOLLOW FIG.15 FOR HOSE AND TIE STRAP PLACEMENT.



STEP 13: CONNECT HYDRAULIC HOSES FROM TRACTOR TO THE HYDRAULIC MOTOR REFERRING TO PUMP AND CONTROL UNIT DIAGRAM FIG.10. NOTE: THE TRACTOR RESERVOIR MAY REQUIRE ADDITIONAL OIL.

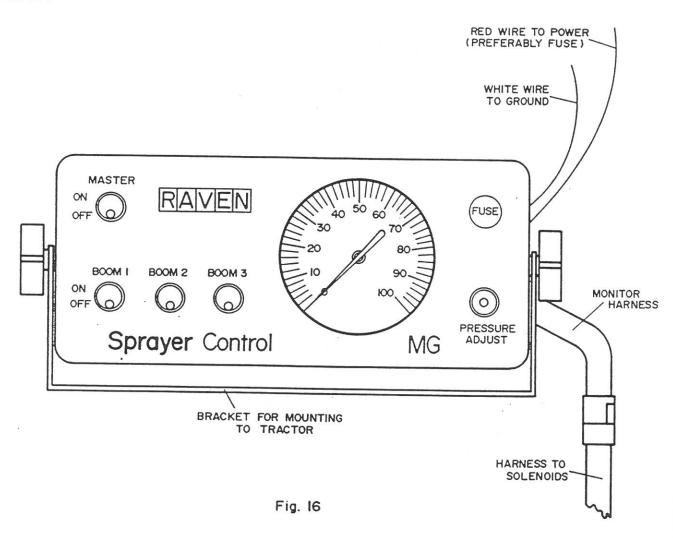
STEP 14: TIGHTEN ALL U-BOLTS USED ON SADDLE TANK AND ALSO TIGHTEN ALL U-BOLTS USED ON PUMP AND CONTROL PLATE. THEREBY SECURING TANK AND CONTROL PLATE IN PLACE.



STEP 15:

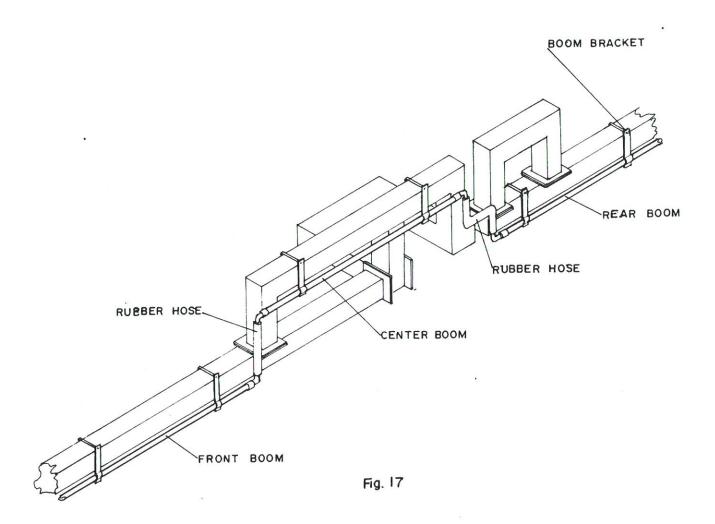
INSTALL SPRAYER CONTROL MONITOR TO TRACTOR GROUND MONITOR BY USING WHITE WIRE, RED WIRE IS FOR POWER PREFERRABLY CONNECTED TO FUSES.

JOIN SPRAYER CONTROL MONITOR HARNESS TO HARNESS COMING FROM SOLENOIDS ON PUMP AND CONTROL PLATE. LONGER HARNESS IS AVAILABLE IF NEEDED. SEE FIG.16.





STEP 16: SPLIT WING HARROW BAR SPRAY KIT ASSEMBLY - Attach front centre and rear booms approximately 48" apart with boom bracket and $3/8" \times 6" \times 5 \ 1/4"$ U-bolt. Between the booms, a rubber hose is attached.





Operating Instructions

NOTE: BEFORE USING UNIT, REMOVE ALL END CAPS ON PVC BOOM. THEN FLUSH COMPLETE SYSTEM WITH CLEAN WATER.

ENSURE THAT THE HYDRAULIC MOTOR AND PUMP COMPLEMENT YOUR TRACTOR UNIT. FAILURE TO DO SO WILL RESULT IN DAMAGE TO THE TRACTOR HYDRAULIC SYSTEM. THE PUMP UNIT, AND/OR BOTH. REFER TO THE "HYDRAULIC MOTOR DRIVEN HYPRO CENTRIFUGAL PUMP SELECTION GUIDE" SEE PAGE 12 TO ENSURE OF THE PROPER CHOICE.

THIS SPRAYER UNIT IS EQUIPPED WITH A CENTRIFUGAL PUMP WHICH HAS DIFFERENT OPERATING CHARACTERISTICS FROM POSITIVE DISPLACEMENT PUMPS. THIS PUMP DOES NOT PUMP A FIXED AMOUNT OF FLUID WHICH MUST GO TO THE BOOMS OR THROUGH A PASS. THIS PUMP CAN BE THROTTLED TO PROVIDE JUST ENOUGH FLOW FOR THE BOOMS. THE REGULATOR VALVE IS USED TO FINE TUNE THE SYSTEM.

HOW TO PUT SPRAYER IN OPERATING POSITION. FOR REFERENCE TO VALVE INSTRUCTIONS SEE FIG.10 ON OPPOSITE PAGE.

- A. FILL TANK WITH ABOUT 150 GALLONS OF WATER
- B. ENSURE THAT THE 1 1/2" BALL VALVE IS IN OPEN POSITION (VALVES ARE OPEN WHEN HANDLES ARE RUNNING IN THE SAME DIRECTION AS PIPES). THIS ALLOWS WATER TO ENTER INTO PUMP.
- C. OPEN 1" BALL VALVE BY PUTTING HANDLE IN SAME DIRECTION AS PIPES. THIS ALLOWS WATER TO GO TO THE AGITATOR IN THE TANK.
- D. CLOSE THE THROTTLE VALVE, THIS IS DONE BY PLACING HANDLE IN OPPOSITE DIRECTION OF PIPES.
- E. PLACE CONTROL PANEL MASTER SWITCH TO "ON" POSITION. ALSO ENGAGE BOOM #1, #2 and #3 TO "ON" POSITION. HOLD THE PRESSURE ADJUST SWITCH TO INCREASE POSITION. HOLD THE PRESSURE ADJUST SWITCH TO INCREASE POSITION. HOLD THE PRESSURE ADJUST SWITCH TO INCREASE POSITION FOR 5 SECONDS TO ALLOW REGULATOR VALVE TO CLOSE. (IF INCREASE POSITION IS NOT SHOWN ON THE UNIT, HOLD IT "UP" FOR THAT SAME AMOUNT OF TIME).
- F. ENGAGE HYDRAULIC PUMP DRIVE. THIS IS DONE BY BRINGING TRACTOR TO OPERATING SPEED (RPM).



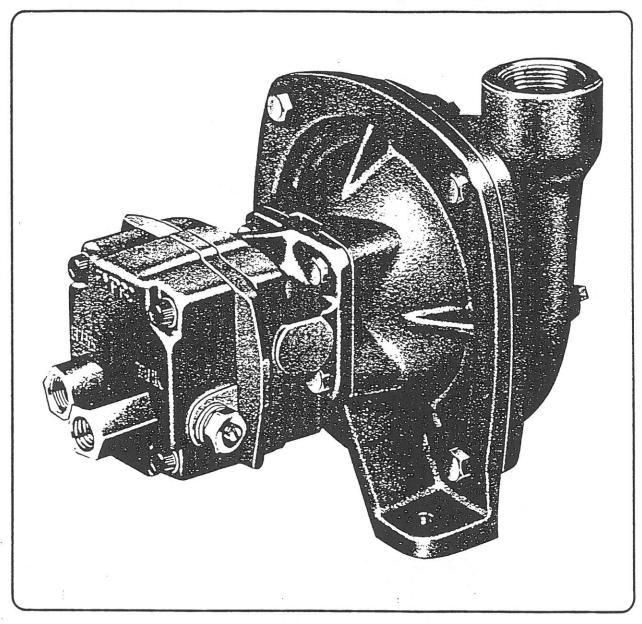
- G. OPEN THE THROTTLE VALVE SLOWLY AND WATCH THE PRESSURE INCREASE ON THE GAUGE. ONCE THE PRESSURE REACHES THE DESIRED POSITION, TURN TO SPRAYER NPZZLE CHART ON PAGE 20.. STANDARD NOZZLE IS 11003LP, FIND DESIRED POSITION PRESSURE BY LOOKING AT MACHINE OPERATING SPEED. OPEN THE THROTTLE VALVE A LITTLE MORE IF MORE PRESSURE IS NEEDED.
- H. SHUT OFF BOOM #1 AND WATCH AS PRESSURE INCREASES, TO ADJUST THE PRESSURE, USE THE PRESSURE ADJUST SWITH (IN "DOWN" POSITION) TO LOWER THE PRESSURE TO THE DESIRED LEVEL. IF THE PRESSURE CANNOT BE LOWERED SUFFICIENTLY, IT MAY BE NECESSARY TO CLOSE THE THROTTLE VALVE SLIGHTLY.
- I. THE UNIT IS NOW READY FOR FIELD OPERATION. THE THROTTLE VALVE CAN BE LEFT AT THIS SETTING.

HOW TO DRAIN SPRAYER SYSTEM

- A. REMOVE PLUG OUT OF BOTTOM OF CROSS. THIS PLUG SHOULD BE REMOVED UNTIL SPRAYER IS NEEDED AGAIN. .
- B. DRAIN WATER OUT OF CENTRIFUGAL PUMP BY REMOVING DRAIN PLUG ON BOTTOM OF PUMP. THIS PLUG CAN BE REPLACED WHEN FINISHED DRAINING.
- C. REMOVE AND DRAIN FILTER. CHECK TO SEE IF FILTER SHOULD BE REPLACED BEFORE PUTTING FILTER BACK IN PLACE.
- D. REMOVE CAPS FROM RIGHT, LEFT AND CENTRE BOOM TO ALLOW FOR DRAINING. THESE CAPS SHOULD BE LEFT OFF UNTIL SPRAYER IS NEEDED AGAIN.



Hypro Hydraulic Motor Driven Centrifugal Pump Selection Guide For Tractor Hydraulic Systems







On open center systems, installation of hydraulic motor driven centrifugal pumps may result in insufficient hydraulic pressures to operate other hydraulic equipment requiring higher hydraulic pressures, such as cylinders. If that occurs, it may be necessary to temporarily stop your hydraulic driven pump to restore the hydraulic system pressure to its norma! operating pressure range.

On open center systems, as the engine speed changes, so does the hydraulic pump flow. For that reason, adjustments made on the hydraulic driven pump should be made with tractor engine speed as close as possible to what it will be operating at in the field. The hydraulic flow on some open center hydraulic systems also decreases when power steering is in use; consequently, so does centrifugal pump flow.

The tractor hydraulic system data contained in these tables should be used only as a guide. For assurance that any continuous duty equipment, such as hydraulic driven centrifugal pumps, will not overheat your hydraulic system, or for more detailed information, consult your tractor manufacturer.

IMPORTANT: Any closed center hydraulic system marked with L.S. is load sensing. All other closed center systems not marked are pressure sensing.

Open or Maximum	Maximum Flow	HYPRO PUMP MODEL				
Closed Center Type	Center Remote	Outlets US GPM.	HM1	HM2	нмз	НМ4
	Closed Center	Closed Pressure Center Remote	Open or Maximum Flow Closed Pressure Remote Center Remote Outlets	Open or Maximum Flow Remote Center Remote Outlets HM1	Open or Maximum Flow HYPRO PU Closed Pressure Remote Center Remote Outlets HM1 HM2	Open or Maximum Flow HYPRO PUMP MODEL Closed Pressure Remote Outlets HM1 HM2 HM3

Agricultural Tractors with 2 Wheel Drive

ALUS CHALMERS	on the recognition and the	Estatolista estatuarios	are a consideration of the State of	Water State of the	Surviva Carlo	. Confederate	strate very ter
ONE SIXTY ONE SEVENTY-G ONE SEVENTY-D 175 CROP HUSTLER 175-D 175-D	OPEN OPEN OPEN OPEN OPEN OPEN	2300 2000 2000 2000 2000 2400 2400	6.7 10 10 11 11	X X X X	×		(2) (2)
180-G 180-D 185 185 AFTER 1972 185-D 190-D	OPEN OPEN OPEN OPEN OPEN OPEN OPEN	2000 2000 2000 2000 2000 2400 2000	10 10 10 10 11 11 12.75	X X X X			(2) (2) (2)
190-GXT 190-DXT 200-D 210 210 AFTER 1972 220	OPEN OPEN OPEN OPEN OPEN OPEN	2000 2000 2400 2000 2400 2000	12.75 12.75 13.2 18 18 18	X X X (1) (1) (1)		X X X	
220 AFTER 1972 5020 5030 5040 5040 AFTER 1978 5045	OPEN OPEN OPEN OPEN OPEN OPEN	2400 1900 1900 2133 2133 2770	18 5.4 5.4 5.75 6.23 6.25	(1)	X X X X	X	
5050 5050 AFTER 1978 6040 6060 6070 6080	OPEN OPEN OPEN OPEN OPEN OPEN	2133 2133 2300 2300 2300 2300 2300	6.23 6.47 7 10 10	X X X	X		X (2)
6140 7000 7010-PD 7010-PS 7020 7020-PS	OPEN OPEN CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2000 2400 2500 2500 2500 2500	10 5.88 17 17 17	x	x		X X X
7030 7040 7040-PS 7045 7045-PS	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2500 2500 2500 2500 2500 2500	17 17 17 17 17 17				X X X X
7060 7060-PS 7080 8010 8030 8050 8070	CLOSED (LS)	2500 2500 2500 2500 2500 2500 2500 2500	17 17 18 17 17 17				X X X X X

CASE/DAVID BROWN	ন কৰিছে বিভাগ কৰিছে ক	e electrical section in the	and high the principle	et William I ser in	ru sertina	great to the region of the
780	OPEN	2000	7.3		X	
880	OPEN	2000	7.3		X	1
885	OPEN	2500 (1)	7.3	1	X	1
990	OPEN	2500 (1)	7.3	1	X	1
995	OPEN	2500 (1)	7.3		X	1
1200	OPEN	2000	6.9 (2)	1	X	
1210	OPEN	2500 (1)	6.9 (2)		X	
1212	OPEN	2500 (1)	6.9 (2)	1	X	
1410	OPEN	2500	7.3 (2)		X	1
1410 AFTER 1977	OPEN	2500	15.5	X		1
1412	OPEN	2500	7.3 (2)	1	X	
3800	OPEN	2000	7.3		X	1
4600	OPEN	2000	7.3	1	X	

⁽¹⁾ For spraying pressures in excess of 60 p.s.i. use HM1.
If directional valve lever kicks out, do not tie lever in operating position. Use next size larger hydraulic motor (HM3), or adjust directional valve detents. If other implements are to be used, use smaller hydraulic motor, HM1.
(2) For spraying pressures in excess of 80 p.s.ii, use HM4.
(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

⁽¹⁾ All 1972 model tractors & earlier have a maximum pressure of 2000 p.s.i.
(2) Maximum flow capability is 15.5 GPM on some models equipped with larger hydraulic pump. On these models the centrifugal pump recommendation is the HM1.



Maximum Flow Remote Outlets US GPM. Open or Closed Center Type Maximum Pressure Remote Outlets HYPRO PUMP MODEL Manufacturer and Model HM1 HM2 нм3 HM4

Agricultural Tractors with 2 Wheel Drive (continued)

	Agricultural Trac						
CASE TO THE PROPERTY OF	Carried States of the States of the States	The section of the section		and the second	TO THE STATE OF	CANAL F	7754 545
470	OPEN	1550	8.6	X	(2)	1	De la constitución de la constit
570	OPEN	1550	9.3	X	(2)	1	
770	OPEN	1550	14-16 (1)	X			
870	OPEN	1550	14-16 (1)	X			
970	OPEN	1900	14-16 (1)	X	1		
1070	OPEN	2100	14-16 (1)	X			
1090	OPEN	2250	14-16	X			1
1170	OPEN	2250	14-16	X			i
1175	OPEN	2250	14-16	X		1	i
1190	OPEN	2200	7.25			1	×
1194	OPEN	2200	7.25		i		×
1270	OPEN	2200	20	(3)	!	×	1
1270 AFTER 1973	OPEN	2050	20	(3)		X	
1290	OPEN	2200	7.25	1		, ,	l x
1294	OPEN	2200	7.25	1	1		×
1370	OPEN	2200	20	(3)	1	X	^
1370 AFTER 1973	OPEN	2050	20	(3)		l â	1
1390	OPEN	2200	15.2	(3)	1	_ ^	!
1394	OPEN	2200	15.2	x	+	-	
1490	OPEN	2200	15.2	î	ĺ		!
1494	OPEN	2200	15.2	l ŝ		İ	1
1570	OPEN	2200	20	(3)	İ		1
1594	OPEN	2200	20.1	(3)		×	1
1690	OPEN	2200	20.1	1		x	
1896	CLOSED (LS)	2250	22			<u> </u>	1 0
2090	CLOSED (LS)	2250	22				X
2094	CLOSED (LS)	2250	22 23 22			1	X
2096	CLOSED (LS)	2250	23		1		1 0
2290	CLOSED (LS)	2250	22				1 0
2294	CLOSED (LS)	2250	23				X
2390	CLOSED (LS)	2250	24		 	 	
2394	CLOSED (LS)	2250	27				X
2590	CLOSED (LS)	2250	24	1	1	1	
2590 AFTER 1979	CLOSED (LS)	2250	23			1	X X
2594	CLOSED (LS)	2250	27			1	X
3294	CLOSED (LS)	2250	27		1	1	X
3394	CLOSED	2250		+		-	X
3594	CLOSED	2250	, 17 17	1	i		×

⁽¹⁾ In 1971 model tractors and earlier the maximum flow is 14 GPM
(2) For spraying pressures in excess of 60 p.s.i. use series HM2
(3) If other implements are to be used use smaller hydraulic motor, HM1
(4) For spraying pressures in excess of 80 p.s.i. use HM4
(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

JOHN DEERE	Service the March Service Service	Contract the	A CASH CAN A	May water		AND THE PERSON ASSESSED.
650	OPEN	1800	4.5		X	(3)
750	OPEN	2000	5.8		x	(3)
820	OPEN	2100	6.5		x	(3)
830	OPEN	2100	6.5		â	(3)
850	OPEN	2100	5.0		x	(3)
850 AFTER 1979	OPEN	2100	6.5		â	(3)
950	OPEN	2100	5.0		X	
950 AFTER 1979	OPEN	2100	6.5		â	(3)
1020	CLOSED	2250	6.5		â	(3)
1020 AFTER 1979	CLOSED	2250	12		â	(3)
1050	OPEN	2100	5.0			(3)
1050 AFTER 1979	OPEN	2100	6.5		X	(3)
1250	OPEN	2100			X	(3)
1450	OPEN	2100	6.5		X	(3)
1650	OPEN		6.5		×	(3)
1520	CLOSED	2100	6.5		×	(3) (3) X
1520	CLOSED	2250 2250	6.5	1 1	×	(3)
1530	CLOSED	2250	12		112	X
1530			6.5		X	(3)
2020	CLOSED	2250	12	1 1		X
2020	CLOSED	2250	6.5	1 1	X	(3) X
2020	CLOSED	2250	12	1 1		X
2030	CLOSED	2250	12	1 1		X
	CLOSED	2250	14			×
2040 (1)	OPEN	2100	6.5		X	(3)
2040(2)	CLOSED	2250	12			X
2150	CLOSED	2350	13.5			X
2155	CLOSED	2320	22			X
. 2240	CLOSED	2250	12			X
2255	CLOSED	2350	13.5			X
2350	CLOSED	2350	13.5			X
2355	CLOSED	2320	22			X
2440	CLOSED	2250	12			l x
2440	CLOSED	2250	14			Î
2520	CLOSED	2250	14			l
2550	CLOSED	2250	13.5			l î
2555	CLOSED	2320	22			l
2630	CLOSED	2250	12			1 x
2630	CLOSED	2250	14			
2640	CLOSED	2250	12			X
2640	CLOSED	2250	14			X
2750	CLOSED	2350	19			X
2755	CLOSED	2320		1 1		X
2840	CLOSED	2250	22			X
2940			14			X
2950	CLOSED	2250	14			X
2955	CLOSED	2350	19			X
3020	CLOSED	2320	22			X
3150	CLOSED	2250	14			X
3150	CLOSED	2250	14			X
3133	CLOSED	2320	22			X



Manufacturer and Model	Open or Closed Center Type	Maximum	Maximum Flow Remote		HYPRO PUMP MODEL				
		Remote Outlets	Outlets US GPM.	HM1	HM2	нмз	HM4		
(JOHN DEERE-continued)	Agricultural Trac	tors with 2 V	Vheel Drive (co	ontinued)					
4000	CLOSED	2250	18	1	1		X		
4020	CLOSED	2250	18				X		
4030	CLOSED	2250	14			1	×		
4040	CLOSED	2250	18				×		
4050	CLOSED	2350	25.5				X		
4230	CLOSED	2350	18				×		
4240	CLOSED	2250	18				X		
4250	CLOSED	2350	25.5				×		
4320	CLOSED	2250	18				X		
4430	CLOSED	2250	18	1	1		X		
4440	CLOSED	2250	18				X		
4450	CLOSED	2350	25.5				X		
4620	CLOSED	2250	18				X		
4630	CLOSED	2250	18	1			X		
4640	CLOSED	2250	18		1		X		
4650	CLOSED	2350	24		1		X		
4840	CLOSED	2250	18				X		
4850	CLOSED	2350	24				X		
5020	CLOSED	2250	18				X		
6030	CLOSED	2250	18		1	1	X		

12 人名马格 计存储性测量系统	Agriculture to the property of the property	handle was the same of the	freed the grade to be at each a	· 陈江、李龙、宋 15世纪4	The server of the server of the
D3006	OPEN	2490	7.2(2)		
D4006	OPEN	2490	6.4 (2)	1 1	
D4506	OPEN.	2485	7.3(2)		1
D4507	OPEN	2500	8.7	X	
D5206	OPEN	2572	7.2(2)		
D5207	OPEN	2500	9.0	X	
D5506	OPEN	2490	Unknown (2)		
D6006	OPEN	2490	Unknown (2)		
D6007 AFTER 1974	OPEN	2840	Unknown (2)		1 1
D6206	OPEN	2485	7.5(2)		
D6507	OPEN	2500	9.7	X	1
D6507C	OPEN	2500	9.7	X	
D6806	OPEN	2940	9.2(2)		
D7007	OPEN	2500	10.6	1 x	1 1
D7206	OPEN	2939	Unknown (2)		1 1
D7807	OPEN	2500	11	X	1
D7807C	OPEN	2500	11	X	
D8006	OPEN	2485	8.6 (2)		
D8006 AFTER 1977	OPEN	2485	9.5 (2)		
D9006	OPEN	2490	Unknown (2)	1	1
D10006	OPEN	2485	8.6 (2)	1 1	1 1
D10006 AFTER 1977	OPEN	2485	10.5 (2)		
D13006	OPEN	2485	10.8 (2)	1 1	1 1
D13006 AFTER 1978	OPEN	2485	11.5(2)		
DX4.70	OPEN	2500	12.4	X	
DX6.30	OPEN	2500	15.3	x	
DX6.50	OPEN	2500	14.8	X	
DX7.10	OPEN	2500	18.2		1 x 1
DX90	OPEN	2485	14.7	X	
DX110	OPEN	2485	14.7	X	
DX140	OPEN	2485	18.2	(1)	X
DX160	OPEN	2485	18.2	(1)	l x

FORD TO THE PLANTAGE WITH SECURITY	tale Mayor pare to the op-	realization as legisles.	en the only restationed	stations by the		1.24 P	a series
1000	OPEN	1400	4.2		X(1)		
1100	OPEN	1850	2.9		N.R.	1	
1110	OPEN	1850	4.1		X(1)	1	
1210	OPEN -	1850	4.3	1	X(1)		
1300	OPEN	2133	4.3		X(1)		
1310	OPEN	2100	6.3	1			X
1500	OPEN	2133	4.0		X(1)		
1510	OPEN	2100	6.6		1.54.57		X
1600	OPEN	1400	4.2		X(1)		17
1700	OPEN	2133	5.3		X X		
1710	OPEN	2100	7.8	1		1 1	X
1900	OPEN	2133	5.9		X		
1910	OPEN	2100	8.6	X			(2)
2000	OPEN	2500	4	1	X(1)		(-)
2600	OPEN	2100	8.5	X			(2)
2610	OPEN(3)	2000	8.5 (3)	Î			(2) (2)
2910	OPEN	2500	7.7	1 .,		1 1	χ̈́
3000	OPEN	2500	5		X		**

Tractor serial numbers through 266749.
 Tractor serial numbers beginning with 266750.
 HM4 unit interchangeable with HM2.

DX160 | OPEN | 2485 | 18.2 | (1) | X |

(1) For spraying pressures in excess of 70 p.s.i. use smaller hydraulic motor, HM1.

(2) These tractors have many optional hydraulic pumps available. Consult your tractor manual or dealer to determine flow available at remote outlet in your tractor. Flows 8 GPM or 1ess use HM2.

Flows 8 GPM to 17 GPM use HM1.

Flows 17 GPM and over use HM3.

For spraying pressures over 70 p.s.i. the HM1 requires a minimum of 11 GPM. HM3 requires a minimum of 20 GPM.

Optional auxiliary hydraulic reservoir is recommended to prevent overheating.



	Open or Closed	Maximum Pressure	Maximum Flow Remote		HYPRO PU	MP MODEL	
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	нмз	HM4
FORD-continued)	Agricultural 7	Tractors with	2 Wheel Driv	e (continue	d)		
3600	OPEN	2100	8.5	X		T	(2)
3610	OPEN(3)	2000	8.5 (3)	X		1	(2)
3910	OPEN	2500	7.7				(2) X
4000	OPEN	2500	5	! !	X		
4100	OPEN	2100	8.5	X			(2)
4110	OPEN(3)	2000	8.5 (3)	X			(2)
4600	OPEN	2100	8.5	X			(2)
4600-SU	OPEN	2100	8.5	x			(2)
4610	OPEN(3)	2000	8.5 (3)	X			(2)
5000	OPEN	2500	6		X		(-)
5600	OPEN	2100	9.7	X			(2)
5610	CLOSED	2000	9.7(4)				X X
6600	OPEN	2100	9.7	X			
6610	CLOSED	2000	9.7(4)				(2) X
6700	OPEN	2100	9.7	X			(2)
6710	CLOSED	2000	9.7(4)	1			(2) X
7000	OPEN	2500	6		X		
7600	OPEN	2100	9.7	X		1	(2)
7610	CLOSED	2000	9.7(4)				X
7700	OPEN	2100	9.7	X		1	
7710	CLOSED	2000	9.7 (4)			1	(2) X
8000	OPEN	2500	. 12	X		1	
8600	OPEN	2500	12	X			
8700	OPEN	2200	15.5	X			
9000	OPEN	2500	16	X			
9600	OPEN	2500	16	X			
9700	OPEN	2200	15.5	X			
TW-5	OPEN	2500	16	X			
TW-10	OPEN	2200	16.2	X			
TW-15	OPEN	2500	15.3	X		- 1	
TW-20	OPEN	2200	15.5	X			1
TW-25	OPEN	2500	15.3	X			
TW-30	OPEN	2200	15.5	X			
TW-30 AFTER 1979	OPEN	2200	20			X	
TW-35	OPEN	2500	20	1		l v	

Maximum centrifugal pump volume 20 GPM at 40 p.s.i. on these systems.
 For spraying pressures in excess of 50 p.s.i. use smaller hydraulic motor, HM4.
 Optional 13.6 GPM pump package available (closed center)

TERNATIONAL HARVESTER	7 17 S - F - S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F S - F		g stranger frager	is the contract	C SAMPLE SEE	alasara	S21.94
140 284 354 364 364 AFTER 1977 384	OPEN OPEN OPEN OPEN OPEN OPEN	1200 1750 2400 2400 2400 2400 2400	566699	×	(6) X X X		(1)
454 464 464 (1975) 464 AFTER 1975 484 544	OPEN OPEN OPEN OPEN OPEN OPEN	2300 2300 2500 2500 2500 1600	9 9 9 10.5 10.5 15 (2)	X X X X			(1)
574 574 AFTER 1975 584 656 664 666	OPEN OPEN OPEN OPEN OPEN OPEN	2500 2500 2500 2500 2000 1600 1600	9 9.5 9.5 15 (2) 16 (2) 15 (2)	X X X X			(1 (1 (3) (3) (3)
674 674 AFTER 1975 684 686 HYDRO-70 756	OPEN OPEN OPEN OPEN OPEN OPEN	2500 2500 2500 1550 1350 1550	9 10.5 10.5 15 (2) 15 (2) 12 (4)	X X X X		(5)	(1)
766 766 AFTER 1975 784 HYDRO-84 HYDRO-86 HYDRO-86 AFTER NOV., 1980	OPEN OPEN OPEN OPEN OPEN CHOSED (LS)	2000 2000 2500 2500 1550 2650	12 13 10.5 10.5 15 (2)	X X X X		(0)	(3)
826 HYDROSTATIC 826 GEAR DRIVE 826 - 886 886 AFTER NOV., 1980 966	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	1550 2000 2000 2250 2650 2000	12 12 12 12 12 18 12	X X X			×
966 AFTER 1975 HYDRO-100 986 986 AFTER 1978 986 AFTER NOV., 1980 HYDRO-186	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	2000 2000 2250 2250 2650 2250	13 13 12 13 18 18	X X X			×



	Open or Closed	Maximum Pressure	Maximum Flow		HYPRO PUMP MODEL				
Manufacturer and Model	Center Type	Remote Outlets	Remote Outlets US GPM.	HM1	HM2	нмз	HM4		
(IH-continued)	gricultural Trac	ctors with 2 V	Vheel Drive (co	ontinued)					
HYDRO-186 AFTER NOV., 1980 1026 1066 1086 1086 AFTER 1977 1086 AFTER NOV., 1980	CLOSED (LS) OPEN OPEN OPEN OPEN OPEN CLOSED (LS)	2650 2000 2000 2450 2450 2650	18 . 12 12 13 12 18	× × ×			X		
1456 1466 - 1486 - 1486 AFTER 1977 1486 AFTER NOV. 1980 1566	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	2000 2250 2450 2450 2650 2650 2250	12 12 13 12.3 18	X X X			x		
1568 * 1586 * 1586 AFTER 1977 1586 AFTER NOV., 1980 3088 3288	OPEN OPEN OPEN CLOSED (LS) OPEN OPEN	2250 2450 2450 2650 2250 2250	13 13 12.3 18 15	× × ×			×		
3388 3488 3588 3688 5088 5288 5488	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2650 2600 2650 2600 2600 2600 2600	18 18.6 18 18.6 25 25 25				X X X X X		

(1) For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor, HM4.
(2) 15-16 GPM for tractors without 3 point hitch. 8.5 GPM for tractors with three point hitch.
(3) For tractors with three point hitch where spraying pressures in excess of 50 p.s.i. use HM4.
(4) Optional 17 GPM hydraulic pump available for this system.
(5) For tractors with optional 17 GPM hydraulic pump use HM3 where spraying pressures up to 60 p.s.i. are sufficient.
(6) Maximum centrifugal pump volume 30 GPM at 40 p.s.i. on this system.
(6) Maximum centrifugal pump volume 30 GPM at 40 p.s.i. on this system.
(7) For tractors built prior to November 1980. International Harvester Service Bulletin S-3436 dated 31 March 1977 advises that continuous hydraulic demand on the remote outlet valves, such as that created by hydraulic motors, can cause damage to the tractor hydraulic system. In gear driven tractors (86 Series, 2 wheel drive), the MCV pump charge circuit would not be receiving its normal flow and in Hydrostatic drive tractors, the oil cooler circuit would not be receiving its normal flow.
(LS) Load Sensing Hydraulic System, On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

MASSEY-FERGUSON	19 19 19 19 19 19 19 19 19 19 19 19 19 1	STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE	ry and the same	Fred Care	William Cartes	And Washing
MF130-D MF135-G MF135-D MF150-G MF150-D MF165-G	OPEN CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED (3)	2000 3000 3000 3000 3000 3000	4 (6) 4 (6) 4 (6) 4 (6) 4 (6) 4 (1)		X (5) X (5) X (5) X (5) X (5) X (5)	
MF165-G AFTER 1972 MF165-D MF165-D AFTER 1972 MF175-G MF175-G AFTER 1972 MF175-D	CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3)	3000 3000 3000 3000 3000 3000	4 (2) 4 (1) 4 (2) 4 (1) 4 (2) 4 (1)		X (5) X (5) X (5) X (5) X (5) X (5)	
MF175-D AFTER 1972 MF180-G MF180-G AFTER 1972 MF180-D MF180-D AFTER 1972 MF205	CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) OPEN	3000 3000 3000 3000 3000 1700	4 (2) 4 (1) 4 (2) 4 (1) 4 (2) 5 (6)		X (5) X (5) X (5) X (5) X (5) X (5) X	
MF210 MF220 MF230-D MF230-G MF235-D MF235-E	OPEN OPEN CLOSED CLOSED CLOSED (3) CLOSED (3)	1700 1700 3000 3000 3000 3000 3000	5.4 (6) 5.4 (6) 4 (6) 4 (6) 4.5 (2) 4.5 (2)		X X X (5) X (5) X (5) X (5)	
MF235-G MF245-D MF245-G MF254 MF255-D MF255-G	CLOSED (3) CLOSED (3) CLOSED (3) OPEN CLOSED (3) CLOSED (3)	3000 3000 3000 2400 3000 3000	4.5 (2) 4.5 (2) 4.5 (2) 9.2 4 (2) 4 (2)	x	X(5) X(5) X(5) X(5) X(5)	
MF265-D MF270 MF274 MF275-D MF285 MF290	CLOSED (3) OPEN OPEN CLOSED (3) CLOSED (3) OPEN	3000 2400 2400 3000 3100 2400	4(2) 9.5 9.4 4(2) 7(2) 9.5	××	X(5) X(5) X	
MF294 MF298 MF670 MF690 MF698 MF699	OPEN OPEN OPEN OPEN OPEN OPEN	2400 2400 2400 2400 2400 2400 2400	9.5 9.5 9.5 9.5 9.5 9.5	X X X X		
MF1080-D MF1085 MF1100-D MF1105 MF1130-D MF1135	CLOSED (3) CLOSED (3) CLOSED CLOSED CLOSED CLOSED CLOSED	3100 3100 2100 2100 2100 2100 2100	7 (1) 7 (2) 20 (4) 20 (4) 20 (4) 20 (4)		×	× × ×



Closed Center Type ultural Tractor	Pressure Remote Outlets	Remote Outlets US GPM.	HM1	HM2	нмз	нма
ultural Tractor	's with 2 Wh	10.			X X	
	2 441111 7 4411	eel Drive (conf	linued)			
CLOSED	2100	. 20(4)				X
CLOSED	2100		ì	i I		X
OPEN	2250	14			X	
OPEN	2250	14	,			
OPEN	2250		X		~	
OPEN	2250	14			1	
OPEN	2250	14				
OPEN						
OPEN		10.0			1	
OPEN			Ŷ	1		
OPEN	70000		Ŷ			
OPEN					1	
	OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN	CLOSED 2100 OPEN 2250 OPEN 2400	CLOSED 2100 20(4) OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 13 OPEN 2400 13	CLOSED 2100 20 (4) OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 X OPEN 2250 14 X OPEN 2250 14 X OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13	CLOSED 2100 20 (4) OPEN 2250 14 OPEN 2400 13 OPEN 2400	CLOSED 2100 20 (4) OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2250 14 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13 OPEN 2400 13

MINNEAPOLIS MOLINE — All Moli JET STAR THREE U302 M670 SUPER G350 G450 G550	OPEN OPEN OPEN OPEN	1550 1700 2000 2100 2133	14 15 20 5.75 5.75	y equipment, su X X	ich as hydra X X	aulic motors.	ing at
* G750 * G850 * G940 * G950 * G1050 * G1350	OPEN OPEN CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED	2050 2050 2200 2000 2000 2000 2000 2000	Unknown Unknown 18 18 18 18 18		X X X		49

* For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

OLIVER — All Moline, Oliver & White 550 1255 1265 1365 1365	OPEN OPEN OPEN OPEN OPEN	1700 1700 2130 2200 2130	Unknown 4.5 5.75 5.75 5.75	ch as hydrauli	X X X X	
1555 1655 1755 1855 1955 2050-2150 2155	OPEN OPEN CLOSED CLOSED CLOSED OPEN CLOSED	2050 2050 2200 2200 2200 2050 2000	11 11 18 18 18 18 11 11	X	X X X	(1)

*For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

(1) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently so is centrifugal pump output.

/HITE - All Moline, Oliver & Whi	te tractors require auxiliary co	oolers for continuo	us duty equipment, s	such as hydraulic	motors.	eterphone i an
1355 1365 230 235 245	OPEN OPEN OPEN OPEN OPEN	3400 3400 3400 2130 2130 2275	5.5 5.5 5.5 5.4 5 8.5		X X X X	(1) (1) (1) X
* 2-50 2-55 * 2-60 * 2-62 2-65 * 2-70	OPEN OPEN OPEN OPEN OPEN	2130 2400 2130 2275 2400 2130	5.5 11.9 5.5 8.5 11.9 5.5	×	X X	×
* 2-70 ROW CROP 2-75 * 2-85 2-88 * 2-105 2-110	OPEN OPEN CLOSED CLOSED CLOSED CLOSED	2050 3000 2250 2250 2250 2250 2250	11 (4) 12 18 (2) 21 18 (2) 21	X		(1) X X X X
* 2-135 * 2-150 * 2-155 * 2-180	CLOSED CLOSED CLOSED CLOSED	2300 2250 2300 2300	20 (2) 20 20 (2) 20 (3)			X X X

*For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

(1) For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor HM4.

(2) After 1979 availability at remote increased to 21 GPM.

(3) Do not exceed 6 GPM continual draw at remote outlet or 80 p.s.i. dead head pressure on pump.

(4) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently so is centrifugal pump output.



	Open or	Maximum	Maximum Flow Remote Outlets US GPM.	HYPRO PUMP MODEL			
Manufacturer and Model	Closed	Pressure Remote Outlets		HM1	HM2	нмз	HM4

Agricultural Tractors with Front Wheel Drive Option

ALLIS CHALMERS	e serveral to be been included	or coming the house of the second	State Line and the	· 在新年 1987年	10		司等的特殊的
220 5020	OPEN OPEN OPEN	2000 1900 2200	18 5.4 6.23	(1)	X	X	
5050 5050 AFTER 1978 6060 6080	OPEN OPEN OPEN	2200 2300 2300	6.47 10 10	×	X		(2)

(1) For spraying pressures in excess of 70 p.s.i. use smaller hydraulic motor HM1 If directional valve lever kicks out do not tie lever in operating position. Use next size larger hydraulic motor (HM3), or adjust directional valve detents.

(2) For spraying pressures in excess of 80 p.s.i. use smaller hydraulic motor HM4.

CASE-DAVID BROWN	and the property of	产用各类发生。全省	建筑的是关系。在这种	是主动性的共和国的	Carried an Alexand
995 1210	OPEN OPEN	Unknown Unknown	7.3 6.8 (1)		X

(1) For use on hydraulic system with optional hydraulic pump with 15.5 GPM availability use larger hydraulic motor HM1.

J.L CASE	A PORT CONTRACTOR OF THE SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECOND SECON	一些地方地位 被	Mary and secretary	STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY	steed with the property
1410 2090 2290	OPEN CLOSED (LS) CLOSED (LS)	2500 2250 2250	15.5 22 22	(1) (1)	×

(1) If other implements are to be used requiring more than 4 GPM oil, use smaller hydraulic motor HM1.

JOHN DEERE	त्र म अनुद्राची क्रिकेट किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्रा किंद्र स्थापन	不再 大学 医多种性	SERVICE TO THE	2年19年20年19日19日	はないないというというできる。
950 1050 2040 2240 2940 3020	OPEN OPEN CLOSED CLOSED CLOSED CLOSED	2100 2100 2250 2250 2300 2000	5.8 5.8 12 12 18	X	X X X
4020 4040 4040 AFTER 1976 4230 4240 4320	CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED	2000 ° 2000 2200 2250 2200 2000	14 20 20 (1) 18 20 (1) 14		X X X X
4430 4430 AFTER 1976 4440 4620 4630 4630 AFTER 1976 4640	CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED	2000 2250 2200 2000 2000 2000 2250 2200	18 18 20 (1) 15 18 18 20 (1)		X X X X X

(1) 17 GPM after 1979. Rated gallonage not available at rated pressure at remote outlets on all closed center systems. Do not use metering oritices on any John Deere closed center hydraulic systems. Use Tortoise-Hare control to regulate flow if available.

DEUTZ A PARAMETER STATE	ency American contract	(4) 是一种种种种的	A CHARLEST AND THE THE		distributed the second	·张西德·哈·
D4006-A D4506-A D5206-A D6006-A D6206-A D6806-A	OPEN OPEN OPEN OPEN OPEN OPEN	2490 2572 2572 2490 2572 2939	Unknown (2) Unknown (2) Unknown (2) Unknown (2) 7.5 (2) 9.2 (2)			
D7206-A D8006-A D8006-A AFTER 1977 D9006-A D10006-A D10006-A	OPEN OPEN OPEN OPEN OPEN OPEN	2939 2572 2572 2490 2572 2572	Unknown (2) 8.6 (2) 9.5 (2) 9.5 (2) 8.6 (2) 9.5 (2)			
D13006-A D13006-A AFTER 1977 DX90-A DX110-A DX140-A DX160-A	OPEN OPEN OPEN OPEN OPEN OPEN	2490 2490 Unknown Unknown Unknown Unknown	11.5 (2) 9.5 (2) 14.7 14.7 18.2 18.2	X X (1) (1)	××	

INTERNATIONAL HARVESTER	ing grander of the company is and of the	e	医基础研究 的使用的对象	· · · · · · · · · · · · · · · · · · ·	Carlotte Control	Water Soirs	i probably
HYDRO-100 600DT 756	OPEN OPEN OPEN	2000 2150 1550	13 5.8 12 (1)	X X	X	(2)	



	Open or Closed	Maximum Pressure	Maximum Flow Remote	HYPRO PUMP MODEL			
Manufacturer and Model	Center Remote Type Outlets	Outlets US GPM.	HM1	HM2	НМ3	HM4	
(IH-continued) Agricult	ural Tractors w	ith Front Wh	eel Drive Opti	on (contin	ued)		
826 826 HYDRO DRIVE 856	OPEN OPEN OPEN	2000 1550 2000	12 12 12	X X X			
* 886 886 AFTER NOV., 1980 966 * 986 * 986 AFTER 1979 986 AFTER NOV., 1980	OPEN CLOSED (LS) OPEN OPEN OPEN CLOSED (LS)	2250 2650 2000 2250 2250 2650	13 18 12 12 13 18	X X X			×
* HYDRO-186 1026 1066 * 1086 1086 AFTER NOV., 1980 1466	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	2250 2000 2000 2450 2650 2000	12 12 12 13 18	X X X			X
* 1486 1486 AFTER NOV., 1980 * 1586	OPEN CLOSED (LS) OPEN	2450 2650 2450	13 18 13	x x			×

(1) Optional 17 GPM hydraulic pump available for this system.
(2) For tractors with optional 17 GPM hydraulic pump use HM3 where spraying pressures up to 60 p.s.i. are sufficient.

For tractors built prior to Nov., 1980, International Harvester Service Bulletin S-3436 dated 31 March 1977 advises that continuous hydraulic demand on the remote outlet valves, such as that created by hydraulic motors, can cause damage to the tractor hydraulic system. In gear criven tractors (86 Series, 2 wheel drive), the MCV pump charge circuit would not be receiving its normal flow and in Hydrostatic drive tractors, the oil cooler circuit would not be receiving its normal flow.

(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

MASSEY FERGUSON	THE STREET,				
MF205-4 MF210-4 MF220-4 MF184-4	OPEN OPEN OPEN OPEN	1700 1700 1700 1700 2417	5.0 (1) 5.4 (1) 5.4 (1) 7.4	X X X	\ \ \ \

(1) Remote flow available through an accessory switch valve that diverts lift system flow to remote outlets—Open Center.
On all Massey Ferguson hydraulic systems—consult tractor dealer for special plumbing instructions.
Watch hydraulic temperature closely when using continuous duty equipment such as hydraulic motors, to prevent overheating hydraulic system.

MINNEAPOLIS-MOLINE - AII M	oline, Oliver & White tractors	require auxiliary coo	lers for continuou	s duty equipment, such as hyd	raulic motors
* G350 * G450	OPEN OPEN	2133 2133	5.75 5.75	X	

* For recommendations on use of auxiliary remote valves for continuous use, consult dealer.

OLIVER - All Moline, Oliver & V	White tractors require auxiliary	coolers for continue	ous duty equipment, e	such as hydrauli	c motors.	Secretary Secretary
1255-1265 1355-1365 1655	OPEN OPEN OPEN	2133 2133 2050	5.75 5.75 11 (1)	Y	×	
1755 1855 1955 2050-2150	CLOSED CLOSED CLOSED OPEN	2200 2200 2200 2200 2050	18 18 18 18 11 (1)	×	X X	

(1) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently centrifugal pump output is decreased. For recommendations on use of auxiliary remote valves for continuous use, consult dealer.

WHITE — All Moline, Oliver & \	White tractors require auxiliary co	colers for continuou	is duty equipment; so	ch as hydraulic	motors.	von Nementines
700 2-30 2-45 2-50 2-60 2-62	OPEN OPEN OPEN OPEN OPEN	3400 2130 2275 2130 2130 2275	5.5 5.4 8.5 6.2 5.8 8.5		X X X	×
2-70 • 2-85 • 2-105 2-135 2-155 2-180	OPEN CLOSED CLOSED CLOSED CLOSED CLOSED	2050 2250 2250 2300 2300 2300 2300	14.6 (1) 20 20 20 20 20 22 (2)	X	X X X	

(1) After 1979 power steering model 17.1 GPM gallonage will drop when power steering is being used, consequently centrifugal pump output will decrease.

(2) Do not exceed 6 GPM continual draw from remote outlet or 80 p.s.i. dead head pressure on pump.

For recommendations on use of auxiliary remote valves for continuous operation, consult dealer.

	Agricultural	Tractors wi	th 4 Wheel	Drive	
IS CHALMERS	rine in the first participation and	1884 B. Marie	The state of the state of	ANTERNE VIEW	well with the state
440 7580 8550 4W220 4W305 4W306	OPEN CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2000 2500 2500 2500 2500 2500	20 18 18 23 21		X
CASE CONTROL CONTROL CONTROL	के प्रकार के अधिकार स्थापन के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के अधिकार के	明山北京省等 苏山	and the contract of the contract of	क्षेत्र इंद्रिकेश्वेष प्रतिकारी	The second of the second property of the second
1470 2470 2670 2870 4490	OPEN OPEN OPEN	2000 2050 2050 2050	16 17 17 22	X (1) (1)	X X
4494 4690	CLOSED (LS) CLOSED (LS) CLOSED (LS)	2250 2250 2250	24 24 24		
4694 4890 4894 4994	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2250 2250 2250 2650	24 24 24 28		
9110 9130 9150	CLOSED CLOSED CLOSED	2500 2500 2500	27 27 27 27		
9170 9180 9190	CLOSED CLOSED OPEN	2500 2500 2250	30 30 25	×	3



	Open or	Maximum	Maximum Flow		HYPRO PU	MP MODEL	
Manufacturer and Model	Closed Center Type	Pressure Remote Outlets	Remote Outlets US GPM.	нм1	HM2	нмз	HM4

Agricultural Tractors with 4 Wheel Drive (continued)

JOHN DEERE	Commence of the middle of	中的特殊的	Ben 18 14 15 16 18 18 18 18 18 18 18 18 18 18 18 18 18	CONTRACTOR OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE	共産の機能
7020 7020 AFTER 1971 7020 AFTER 1973 7520	CLOSED CLOSED CLOSED CLOSED	2000 2000 2250 2000	15 14 18 14		X X X
7520 AFTER 1973 8430 8440 8450	CLOSED CLOSED CLOSED CLOSED	2250 2250 2250 2350	18 18(1) 18(1) 28.5		X X X
8640 8650 8850	CLOSED CLOSED CLOSED	2250 2350 2350	18(1) 28.5 30		X

⁽¹⁾ Rated gallonage not available at rated pressure at remote outlets on closed center systems.

Do not use metering orifices on any closed center hydraulic systems. Use Tortoise-Hare control to regulate flow if available.

EDNATIONAL HARVESTER	1、 对自己不同时间,这种特别的	·		i di alma kintariri (s)	对研究的企业的企业的企业
4166 4186 4366	OPEN OPEN OPEN	2000 2000 2000	17 18 22	(1) (1)	X
4386 4386 4568 4586 4786	OPEN OPEN OPEN OPEN	2000 1800 2000 2000	16 16 17.5 (2) 17.5 (2)	X (1) (1)	×
6388 6588 6788	CLOSED (LS) CLOSED (LS) CLOSED (LS)	2600 2600 2600	18.6 18.6 18.6	X X X	

⁽¹⁾ For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor HM1.
(2) Repair pump can be 21 GPM. Consult dealer to confirm auxiliary pump hydraulic flow. Use HM3 hydraulic motor if flow is 21 GPM.

SSEV FERGUSON	er-service and the service of the service of	STATE OF STREET	经数据证明的证明 多年	· · · · · · · · · · · · · · · · · · ·
* MF1500-D * MF1505 * MF1800-D	OPEN OPEN OPEN	2400 2400 2400	20 20 20	X X X
* MF1805 * MF4840 * MF4880 * MF4900	OPEN OPEN OPEN OPEN	2400 2500 2500 2500 2250	20 20 (1) 20 (1) 20 (1)	X X X

^{(1) 2.5-20} GPM with flow control. Consult dealer for preferred method of operation for continuous duty equipment such as hydraulic motor. Watch hydraulic temperature closely when using continuous duty equipment, such as hydraulic motor, to prevent overheating hydraulic system.

* Auxiliary cooler is required on all 4 wheel drive Massey Ferguson tractors.

MINNEAPOLIS-MOLINE	स्टब्स्टिक्ट्रिकेट विश्वविद्यालया । स्टब्स्टिक्ट्रिकेट	of property of the second	beitschieden.	建设设施的设施的	end is table to be a con-	March March
• A4T1400 • A4T1600	CLOSED CLOSED	2000 2000	20 20			X

^{*} For use with continuous duty equipment, such as hydraulic motor, auxiliary coolers are required.

OLIVER	in the state of the last of the second	THE SHEET WILLIAM WA	gentler attended a	રાષ્ટ્ર કુલ્લા કરવાનું તાલું હતો. તાલું કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા કુલ્લા	A company of the second
• 2655	CLOSED	2000	20		X

^{*} For use with continuous duty equipment, such as hydraulic motor, auxiliary coolers are required.

STEIGER	Setting programme about	Walter Street Control	والإراب والمراشية	consignate for the second	Control of the second	V1 . A +1 -
	OPEN	2000	24		X	1
* SUPER WILDCAT	OPEN	2250	20	1 1	×	
* WILDCAT RC210 * WILDCAT ST210	OPEN	2250	20		X	
* BEARCAT	OPEN	2000	22		X	
* BEARCAT ST220	OPEN	2250	20	1	X	1
* BEARCAT PT225	OPEN	2250	20		X	
	OPEN	2250	20		X	
BEARCATIV CM225	OPEN	2250	20	1 1	\ x	1
BEARCAT IV KM225	OPEN	2000	22		×	
* COUGAR	OPEN	2250	20		X	1
· COUGAR ST250	OPEN	2250	20		l x	
* COUGAR ST251	OPEN	2250	20		X	
COUGAR ST270	OPEN	2000	20		X	
* COUGAR PT270	OPEN	2250	20		X	
COUGAR IV CM250		2250	20		X	
COUGAR IV CM280	OPEN	2250	20	1	X	
COUGAR IV KM280	OPEN	2250	20		X	1
COUGAR IV CS280	OPEN OPEN	2250	20		X	
COUGAR IV KS280			20		X	
 PANTHER PTA297 	OPEN	2250		1 1	l	
* PANTHER ST310	OPEN	2250	20	1 1	l	
* PANTHER ST320	OPEN	2250	20		l	
* PANTHER ST325	OPEN	2250)	
 PANTHER III PTA325(1) 	OPEN	2250	20		l	
PANTHER IV CM325	OPEN	2250	20			



	Open or Closed	Maximum Pressure	Maximum Flow Remote		HYPRO PU	MP MODEL	
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	НМЗ	HM4
(STEIGER-continued)	Agricultural Tra	ctors with 4	Wheel Drive (c	ontinued)			
PANTHER IV KM325 PANTHER IV CM360 PANTHER IV KM360 PANTHER ST350 PANTHER PT350 PANTHER CP1325 PANTHER KP1325	OPEN OPEN OPEN OPEN OPEN OPEN CLOSED (LS) CLOSED (LS)	2250 2250 2250 2250 2250 2250 2500 2500	20 20 20 20 20 20 25			X X X X	X
PANTHER CP1360 PANTHER KP1360 PANTHER CP1400 PANTHER KP1400 TIGER	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) OPEN	2500 2500 2500 2500 2500 2000	25 25 25 25 25 25 25			×	XXXX
TIGER ST450 TIGER IV KP525 PTA251(1) PTA270(1) ST280(1) PTA280(1) PTA310(1)	OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN	2250 2250 2250 2250 2250 2250 2250 2250	25 25 20 20 20 20 20			X X X X	
PUMA 1000 WILDCAT 1000 COUGAR 1000 PANTHER 1000 LION 1000	CLOSED CLOSED CLOSED CLOSED CLOSED	2500 2500 2500 2500 2500	27 27 27 27 27 27				X X X

^{*} Steiger does not recommend use of continuous duty equipment without flow divider or auxiliary cooler. Coolers are available for older model tractors.

(1) Series III tractors available with flow divider kit. Standard output 9 GPM - HM4. Optional output 18 GPM - HM3.

RSATILE		A Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comment of the Comm	数位分割债金。	·在京东西中的中国	14. 14. 14 A. 18	TO LOW WIND IN	-
118	OPEN	1700	12.5	X		1	
118 AFTER 1971	OPEN	2000	16.5	X			Į.
125	OPEN	1750	12.5	X	1	1	1
145	OPEN	1750	12.5	X		1	1
145 AFTER 1971	OPEN	2000	16.5	x		1	1
150	OPEN	2500	14	l ŝ			
150 AFTER 1976	OPEN	2500	15	X		1	+-
150 SERIES II	OPEN	2250	15	X	i	i	
256	CLOSED	2800	27.6				
276	CLOSED	2800	27.6	1	1		
300	OPEN	2000	16	X			
500	OPEN	2300	24	^		×	1
555	OPEN	2400	23.2		 	x	+-
700	OPEN	2000	24			x	
700 SERIES II	OPEN	2300	25		Į.	Î	
750 SERIES II	OPEN	2300	23.5			l â	1
756	CLOSED	2400	25			^	1
800	OPEN	2000	20				
800 SERIES II	OPEN	2300	23.5		1	X	1
825 SERIES II	OPEN	2300	23.5			X	+-
835	OPEN	2300	23.5 (1)		İ	Î	
836	CLOSED	2400	25.3 (1)			^	
850	OPEN	2000	20		Į.		
850 SERIES II	OPEN	2300		1	1	X	1
855	OPEN	2300	23.5			X	
856	CLOSED		23.5 (1)			X	
875	OPEN	2400	25				
876		2300	23.5 (1)			X	
895	CLOSED	2400	25				
900	OPEN	2400	23.6 (1)			X	1
	OPEN	2000	26			X	
900 SERIES II	OPEN	2300	25			X	1
905 935	OPEN	2300	23.5			X	
936	OPEN	2300	25 (1)			X	
	CLOSED	2400	24	1		2500	
945	OPEN	2250	23.6			X	
950	OPEN	2300	25 (1)			X	
950 SERIES II	OPEN	2300	25			X	
955	OPEN	2250	23.6			X	1
956	CLOSED	2400	24	1	1		1
975	OPEN	2250	23.6			X	1
976	CLOSED	2400	24	1		1 "	
1150	CLOSED (LS)	2500	27				
1156	CLOSED	2500	27	1	1		

⁽¹⁾ On 1975 model tractors and newer, when power steering is being used there will be a drop in hydraulic GPM, consequently centrifugal pump flow will decrease. Consult your Versatile Farm Equipment dealer for special plumbing instructions.

4-150	CLOSED	2250	10		
4-175	CLOSED	2250	18	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1
4-180	CLOSED		20	X	1
4-210		2250	18	X	
4-225	CLOSED	2250	20	X	- 1
	CLOSED	2250	25		
4-270	CLOSED	2250	27	1 1	



Hose Length Chart

Harrow Bar

15 FT. A-FRAME WITH 500 GALLON TANK

11 FT. CENTRE TUBE - 1" Hose x 180" Right and Left Hose Boom AGITATOR - 1" Hose x 42" ANTI-VORTEX - 1 1/2" Hose x 32" CENTRE BOOM - 1" Hose x 52"

20 FT. A-FRAME WITH 500 GALLON TANK

11 FT. CENTRE TUBE - 1" Hose x 216" Right and Left Hose Boom AGITATOR - 1" Hose x 42" ANTI-VORTEX - 1 1/2" Hose x 32" CENTRE BOOM - 1" Hose x 52"

20 FT. A-FRAME WITH 833 GALLON TANK

11 FT. CENTRE TUBE - 1" Hose x 216" Right and Left Hose Boom AGITATOR - 1" Hose x 84" ANTI-VORTEX - 1 1/2" Hose x 66" CENTRE BOOM - 1" Hose x 108"

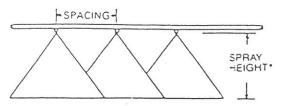
Harrow Packer Bar

20 FT. A-FRAME WITH 833 GALLON TANK

11 FT. CENTRE TUBE - 1" Hose x 216" Right and Left Hose Boom AGITATOR - 1" x 62" ANTI-VORTEX - 1 1/2" x 41" CENTRE BOOM - 1" x 96"

Nozzle Sprayer Chart





*Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

	ESTED MINIMUM RAY HEIGHT
SPRAY ANGLE	SPRAY HEIGHT 20" SPACING
80"	17-19" 10-12"

HOW TO ORDER:

SPECIFY TIP NO.

Examples:

XR 8002VS—Stainless Steel with

VisiFlo color coding

XR 8002VH—Hardened Stainless Steel with VisiFlo color coding

		NO. creen Size)	Liquid	Capacity	Capacity	G	ALLONS 20° SP	PER ACI ACING	RE .	G	ALLONS 30" SP	PER ACI	RE
TIP COLOR	80° SERIES	110° SERIES	Pressure in PSI	1 Nozzle in GPM	1 Nozzle in cz/min.	5 MPH	6 MPH	7 MPH	8 MPH	5 MPH	6 MPH	7 MPH	8 MPH
Orange	XR8001 (100 Mesh)	XR11001 (100 Mesh)	15 20 30 40 60	.06 .07 .09 .10	8 9 11 13 15	3.6 4.2 5.1 5.9 7.3	3.0 3.5 4.3 5.0 6.1	2.6 3.0 3.7 4.2 5.2	2.3 2.6 3.2 3.7 4.6	2.4 2.8 3.4 4.0 4.9	2.0 2.3 2.9 3.3 4.0	1.7 2.0 2.5 2.8 3.5	1.5 1.8 2.1 2.5 3.0
Green	XR80015 (100 Mesh)	XR110015 (100 Mesh)	15 20 30 40 60	.09 .11 .13 .15	12 14 17 19 23	5.5 6.3 7.7 8.9 10.9	4.5 5.3 6.4 7.4 9.1	3.9 4.5 5.5 6.4 7.8	3.4 3.9 4.8 5.6 6.8	3.6 4.2 5.1 5.9 7.3	3.0 3.5 4.3 5.0 6.1	2.6 3.0 3.7 4.2 5.2	2.3 2.6 3.2 3.7 4.6
Yellow	XR8002 (50 Mesh)	XR11002 (50 Mesh)	15 20 30 40 60	.12 .14 .17 .20 .25	15 18 22 26 32	7.3 8.4 10.3 11.9 14.6	6.1 7.0 8.6 9.9 12.1	5.2 6.0 7.4 8.5 10.4	4.5 5.3 6.4 7.4 9.1	4.8 5.6 6.9 7.9 9.7	4.0 4.7 5.7 6.6 8.1	3.5 4.0 4.9 5.7 6.9	3.0 3.5 4.3 5.0 6.1
Blue	XR8003 (50 Mesh)	XR11003 (50 Mesh)	15 20 30 40 60	.18 .21 .26 .30 .37	23 27 33 38 47	10.9 12.6 15.4 17.8 22	9.1 10.5 12.9 14.9 18.2	7.8 9.0 11.0 12.7 15.6	6.8 7.9 9.7 11.1 13.6	7.3 8.4 10.3 11.9 14.6	6.1 7.0 8.6 9.9 12.1	5.2 6.0 7.4 8.5 10.4	4.5 5.3 6.4 7.4 9.1
Red	XR8004 (50 Mesh)	XR11004 (50 Mesh)	15 20 30 40 60	.24 .28 .35 .40	31 36 45 51 63	14.5 16.8 21 24 29	12.1 14.0 17.2 19.8 24	10.4 12.0 14.7 17.0 21	9.1 10.5 12.9 14.9 18.2	9.7 11.2 13.7 15.8 19.4	8.1 9.3 11.4 13.2 16.2	6.9 8.0 9.8 11.3 13.9	6.1 7.0 8.6 9.9 12.1
Brown	XR8005 (50 Mesh)	XR11005 (50 Mesh)	15 20 30 -40 60	.31 .35 .43 .50	40 45 55 64 78	18.2 21 26 30 36	15.2 17.5 21 25 30	13.0 15.0 18.4 21 26	11.4 13.1 16.1 18.6 23	12.1 14.0 17.2 19.8 24	10.1 11.7 14.3 16.5 20	8.7 10.0 12.3 14.1 17.3	7.6 8.8 10.7 12.4 15.2
Gray	XR8006 (50 Mesh)	XR11006 (50 Mesh)	15 20 30 40 60	.37 .42 .52 .60 .74	47 54 67 77 95	22 25 31 36 44	18.2 21 26 30 36	15.6 18.0 22 25 31	13.6 15.8 19.3 22 27	14.5 16.8 21 24 29	12.1 14.0 17.2 19.8 24	10.4 12.0 14.7 17.0 21	9.1 10.5 12.9 14.9 18.2
White	XR8008 (50 Mesh)	XR11008 (50 Mesh)	15 20 30 40 60	.49 .57 .69 .80	63 73 88 102 125	29 34 41 48 58	24 28 34 40 49	21 24 29 34 42	18.2 21 26 30 36	19.4 22 27 32 39	16.2 18.7 23 26 32	13.9 16.0 19.6 23 28	12.1 14.0 17.2 19.8 24

NOTE: ALL MEASUREMENT ARE IN U.S. TO CONVERT MULTIPLY BY .83



Notes

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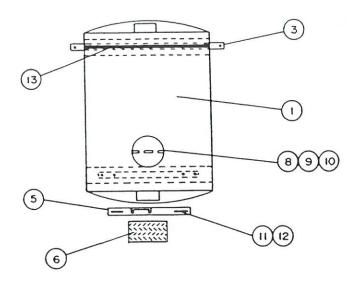
Boom Length Chart

Harrow Bar CENTRE BOOM	PART NO
11 Ft. CENTRE BOOM - 8'2" BOOM	50010
WING TUBE BOOM	
50 Ft 18'2" BOOM 60 Ft 23'2" BOOM 70 Ft 28'2" BOOM 80 Ft 33'2" BOOM	50017 50022 50024 50027
Harrow Packer Bar	
11 Ft. CENTRE BOOM - 11'3" BOOM	50060
WING TUBE BOOM	
50 Ft 16'5" BOOM 60 Ft 21'8" BOOM 70 Ft 24'7" BOOM 80 Ft 32'4" BOOM	50061 50062 50063 50064
Split Wing Harrow Bar	
CENTRE BOOM	PART NO.
11 Ft. CENTRE BOOM - 8'2" BOOM	50010
WING TUBE BOOM	
80 Ft 33'0" BOOM 90 Ft 38'0" BOOM 100 Ft 43'0" BOOM	50066 50067 50068

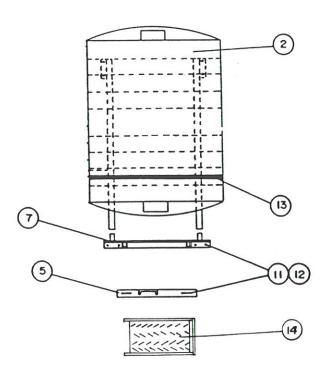


Tank and Saddle

500 GALLON TANK

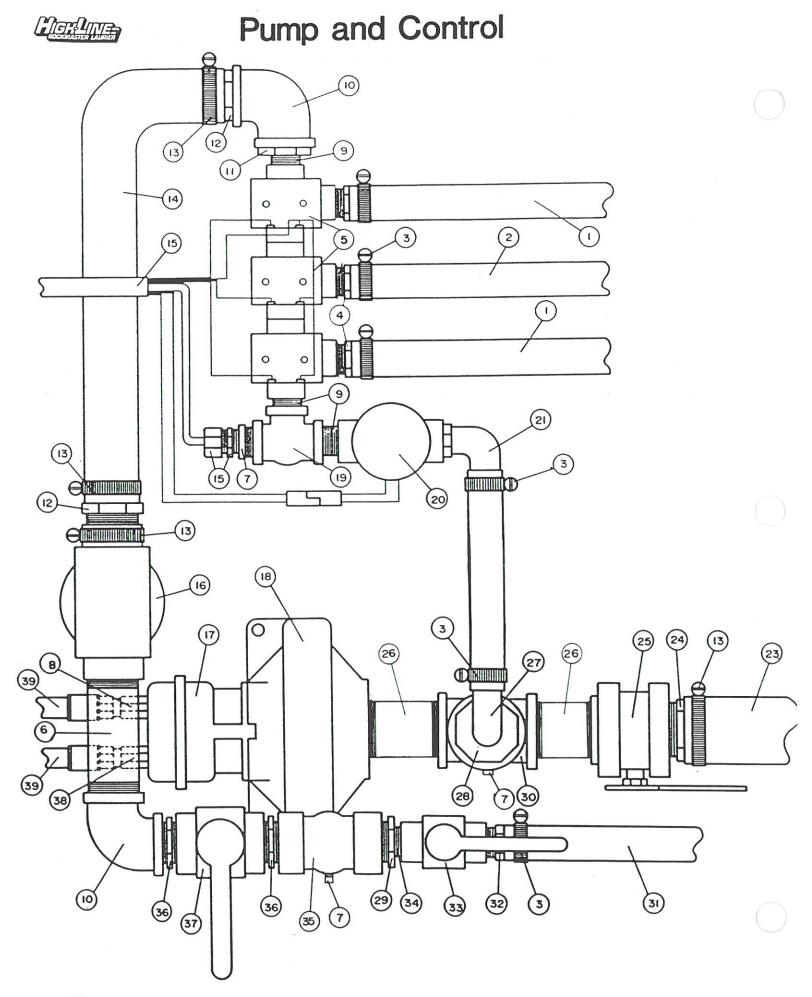


833 GALLON TANK





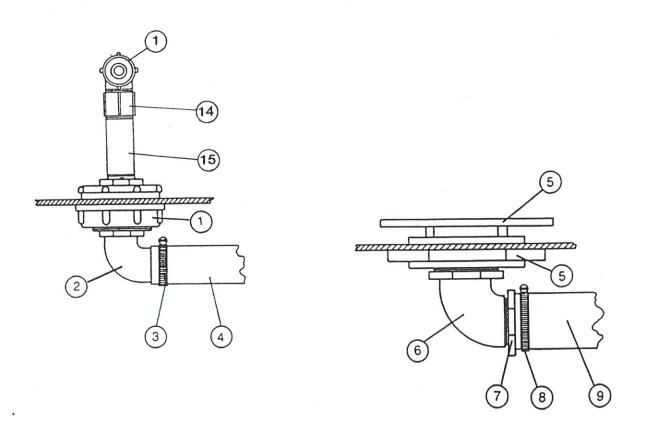
ITEM	PART NUMBER	DESCRIPTION	Nº
1	93000	500 Gallon Tank	1
2	93001	833 Gallon Tank	1
3	50001	500 Gallon Saddle	1
4	50002	833 Gallon Saddle	1
5	50003	Pump and Control Plate	1
5 6	50004	Pump Guard	1
7	50005	Saddle Support 20 Ft. A-Frame	
		(Harrow Bar)	1
	50055	Saddle Support 20 Ft. A-Frame	
		(Harrow Packer Bar)	1
8	93002	Tank Lid	1
9	93003	Tank Lid Strainer	1
10	93004	Centre Cover	1
11	UB0848112	U-Bolt 1/2" x 3" x 7" (Harrow Bar)	6
	UB0850146	U-Bolt $1/2$ " x 3 $1/8$ " x 9"(HarrowPackerBar)	6
	LN5C08P	Locknut 1/2"	12
	93005	Tank Webbing Support Kit (Complete)	. 2
14	50057	Sprayer Kit Guard & Step Support (HB)	1
	50054	Sprayer Kit Guard & Step Support (HPB)	1
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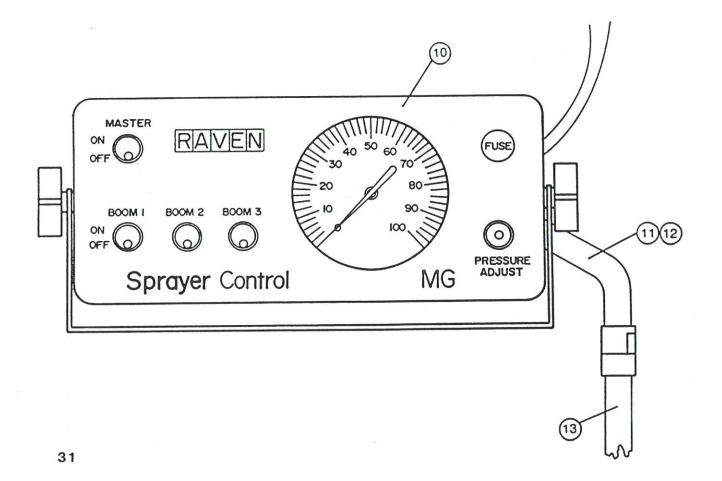




ITEM	PART NUMBER	DESCRIPTION	No
1	50037	1" Hose x 180" Right & Left Boom	2
	50038	1" Hose x 216" Right & Left Boom	2
	50039	1" Hose x 252" Right & Left Boom	2
2	50040	1" Hose x 52" Centre Boom	1
	50041	1" Hose x 108" Centre Boom	1
3	93029	1" Gear Clamp	6
4	93085	1" Hose Barb, 1/2" MPT	3
5	93031	Solenoids	3
6	93062	Nipple 1 1/4" MPT x 4"	1
-7	93095	1/2" Nylon Plug	3
8	93063	Metering Orifice	1
9	93035	Nipple 3/4" MPT	3
10	93036	90° Elbow 1 1/4" FPT	2
11	93037	Reducer Bushing 1 1/4" MPT, 3/4" FPT	1
12	93038	1 1/4" Hose Barb, 1 1/4" MPT	2
	93039	1 1/2" Gear Clamp	4
	50042	1 1/4" Hose x 15" Filter	1
	93040	Solenoid Harness c/w Nut & Nipple	1
	93041	Filter	1
17	93042	Hydraulic Motor c/w Pump 9303C-HM1	1
	93043	Hydraulic Motor c/w Pump 9303C-HM2	1
1.0	93044	Hydraulic Motor c/w Pump 9303C-HM3	1
	93045	Centrifugal Pump	1
	93046 93047	Tee 3/4" FPT	1
M 1	93047	Regulator Valve	1
	50043	90° Elbow 3/4" MPT, 1" Hose Barb 1" Hose x 3 1/2" Regulator Valve	1
	50043	1 1/2" Hose x 32" Anti-Vortex	1
	50045	1 1/2" Hose x 66" Anti-Vortex	1
	50046	1 1/2" Hose x 87" Anti-Vortex	1
	93049	1 1/2" Hose Barb, 1 1/2" Hose Barb	1
	93050	1 1/2" Ball Valve (Anti-Vortex)	ī
	93051	Nipple 1 1/2" MPT	2
	93052	90° Elbow 1 1/4" MPT, 1" Hose Barb	1
	93053	Reducer Bushing 1 1/2" MPT, 1 1/4" FPT	1
	93054	Reducer Bushing 1 1/4" MPT, 1" FPT	1
	93096	1 1/2" Tee c/w Two 1/2" Side Ports	1
31	50047	1" Hose x 42" Agitator	1
	50048	1" Hose x 84" Agitator	1
	50049	1" Hose x 101" Agitator	1
	93012	1" Hose Barb, 1" MPT	1
	93056	1" Hose Valve	1
	93057	Nipple 1 1/4" MPT	3
	93058	Tee 1 1/4" FPT	1
	93059	Nipple 1 1/4" MPT	3
	93060	1 1/4" Ball Valve (Throttle)	1
	93061	Hyd. Motor Port Adaptor c/w Check Valve	1
39	90218	1 1/2" Hose 1/2" M-1/2" M x 96"	2

Agitator, Anti-Vortex and Sprayer Control



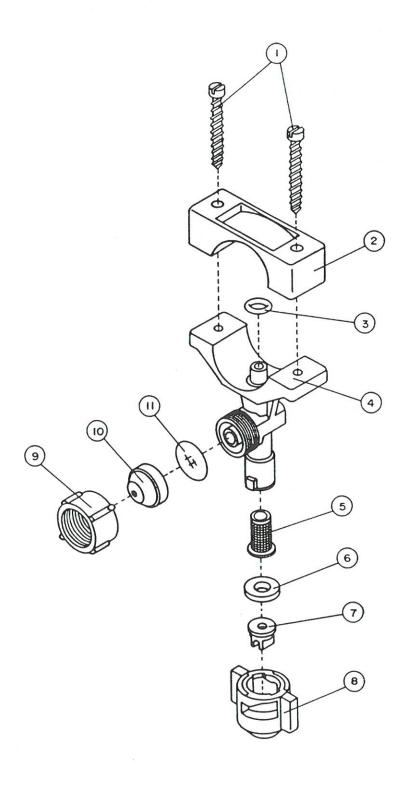




ITEM	PART NUMBER	DESCRIPTION	Nº
1	93064	Agitator	1
2	93052	90° Elbow 1" MPT, 1" Hose Barb	1
3	93029	1" Gear Clamp HS16	1
4	50047	1" Hose x 44" Agitator	1 1
	50048 50049	1" Hose x 84" Agitator 1" Hose x 101" Agitator	1
5	93065	Anti-Vortex	1
6	93066	90° Elbow 1 1/2" MPT, 1 1/2" FPT	1
7	93049	1 1/2" Hose Barb, 1 1/2" MPT	1
8	93039	1 1/2" Gear Clamp HS24	1
9	50044	1 1/2" Hose x 16" Anti-Vortex	1 1
	50045	1 1/2" Hose x 66" Anti-Vortex 1 1/2" Hose x 87" Anti-Vortex	1
10	50046 93067	Sprayer Control Monitor	1
11	93068	Sprayer Control Monitor Harness	ī
12	93069	Sprayer Control Monitor Harness Extension	1
13	93040	Solenoid Harness	1
14	93072	Coupler 3/4" MPT	1
15	93071	Nipple 3/4" MPT x 6"	1
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Nozzles

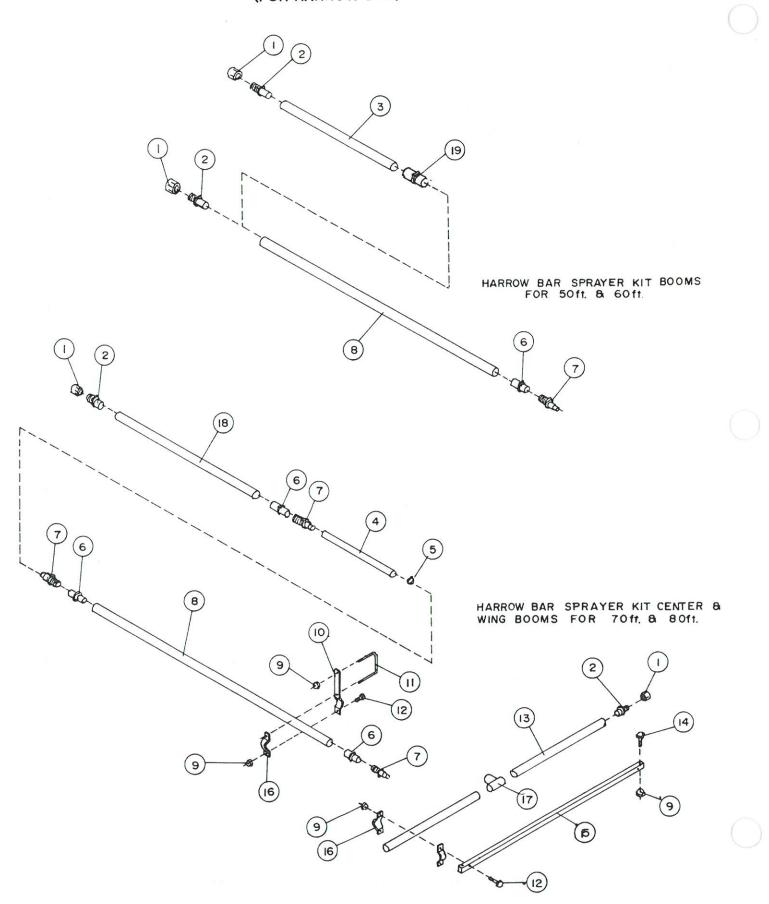




ITEM	PART NUMBER	DESCRIPTION	No
1 2	93015 93016	Screws Upper Clamp	2
3	93017	O-Ring	1
4 5	93018 93019	Main Body	1
6	93020	Teejet Strainer Seat Washer	1 1
7	93021	Spray Tip (11003LP)	1
8 9	93022 93023	Cap (Yellow) (Other Color Caps Available) Retainer	1 1 1
10	93024	End Cap	1
11	93025	Diaphragm	1
		*As Required	
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Boom Assembly

(FOR HARROW BAR)



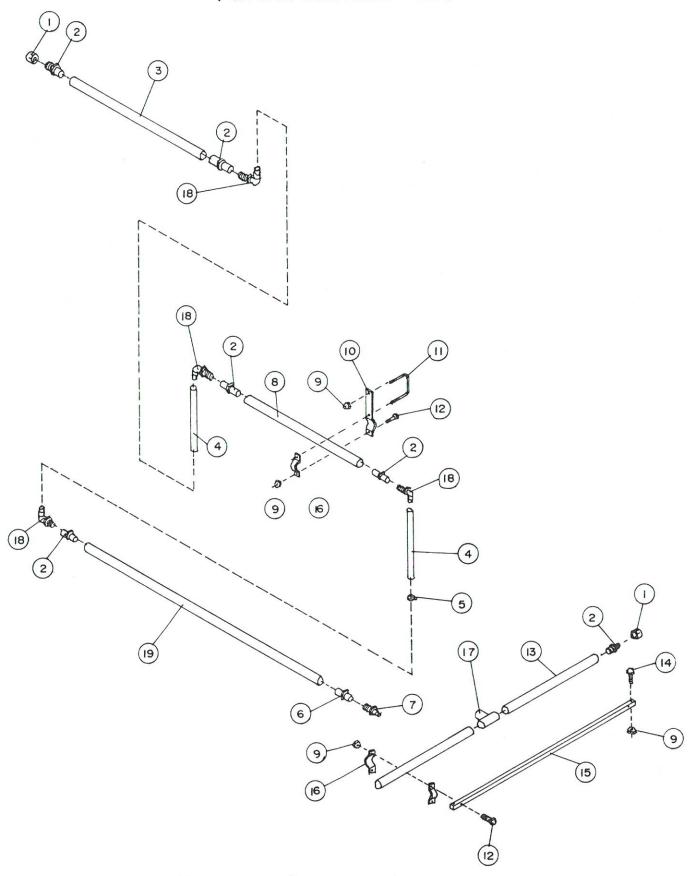


ITEM	PART NUMBER	DESCRIPTION	Nº
		#1.00 (0.000) - 0.0000 (0.0000) - 0.0000 (0.0000)	
1	93006	1" PVC Cap 1" FPT	*
2	93007	1" PVC Adaptor 1" MPT, 1" SOC	*
3	02074	Rear Wing Boom Extention (See Page 26)	
4	93074	Rubber Hose x 19"	*
5	93029	1" Gear Clamp	*
6	93011	1" PVC Adaptor 1" FPT. 1" SOC	*
	93012	1" Hose Barb 1" MPT	*
8 9	LN5C06P	Regular Size Wing Boom (See Page 26) Locknut 3/8"	*
10	50050	Wing Tube Clamp	*
11	UB069684	U-Bolt 3/8" x 6" x 5 1/4"	*
12	B5C0616P	Dol+ 2/9" + 1"	*
13	BJC0010F	Bolt 3/8" x 1" Centre Boom (See Page 26)	*
14	B5C0628P	Bolt 3/8" x 1 3/4"	*
15	50012	Centre Boom Support	*
16	50012	Boom Clamp	*
17	93013	1" PVC Tee	*
18	93013	Rear Wing Boom (See Page 26)	*
19	93073	1" PVC Adaptor 1" SOC	*
		*As Required	



Boom Assembly

(FOR SPLIT WING HARROW BAR)



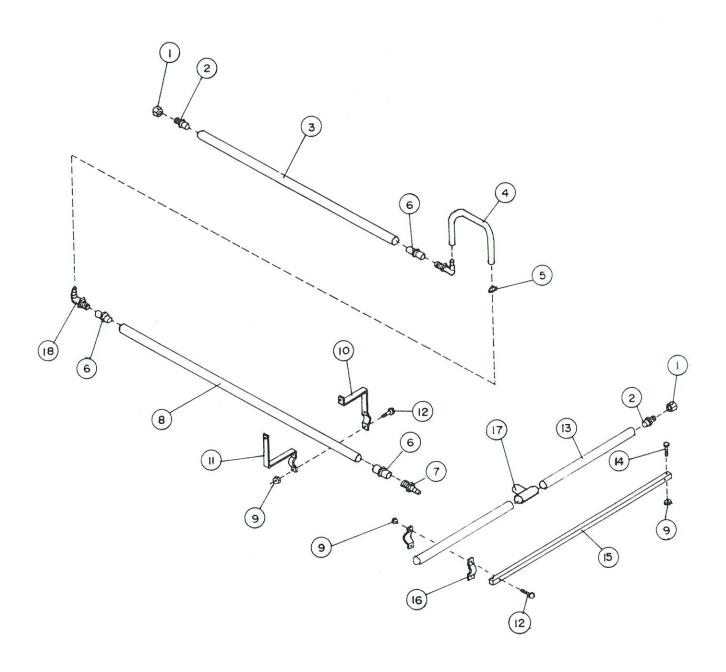


ITEM	PART NUMBER	DESCRIPTION	N₅
1 2	93006 93007	1" PVC Cap 1" FPT 1" PVC Adaptor 1" MPT, 1" SOC	4 4
3	0.2054	Rear Split Wing Boom (See page 26)	*
4 5	93074	Rubber Hose x 19" 1" Gear Clamp	4 8
6	93011	1" PVC Adaptor 1" FPT, 1" SOC	10
7	93012	1" PVC Adaptor 1" FPT, 1" SOC 1" PVC Hose Barb 1" MPT	4
8 9	LN5C06P	Centre Split Wing Boom (See Page 26)	*
10	50050	Locknut 3/8" Wing Tube Clamp	*
11	UB069684	U-Bolt 3/8" x 6" x 5 1/4"	*
12	B5C0616P	Bolt 3/8" x 1"	*
13	DE 00 (20 D	Centre Boom (See Page 26)	*
14 15	B5C0628P 50012	Bolt 3/8" x 1 3/4" Centre Boom Support	*
16	50012	Boom Clamp	1 *
17	93013	1" PVC Tee	1
18	93079	1" PVC Elbow Hose Barb 1" MPT	8
19		Front Split Wing Boom (See Page 26)	*
		*As Required	



Boom Assembly

(FOR HARROW PACKER BAR)





ITEM	PART NUMBER	DESCRIPTION	N°
1	93006	1" PVC Cap 1" FPT	4
2 3	93007	1" PVC Adaptor 1" MPT, 1" SOC Rear HPB Wing Boom (See Page 26)	4
4	50059	Rubber Hose 1" x 30"	2
5	93029	1" Gear Clamp	4
6	93011	1" PVC Adaptor 1" FPT, 1" SOC 1" PVC Hose Barb 1" MPT	6 2
7 8	93012	Front HPB Wing Boom (See Page 26)	*
9	LN5C06P	Locknut 3/8"	*
10	50058	Front PVC Boom Clamp for HPB	*
11 12	50057 B5C0616P	Back PVC Boom Clamp for HPB	*
13	B3C0616P	Bolt 3/8" x 1" Centre Boom for HPB (See Page 26)	1
14	B5C0628P	Bolt 3/8" x 1 3/4"	*
15	50065	Centre Boom Support for HPB	1 *
16 17	50013 93013	Boom Clamp 1" PVC Tee	1
18	93079	1" PVC Flee 1" PVC Elbow Hose Barb 1" MPT	4
		*As Required	



Parts Index

PART #	PAGE	ITEM	DESCRIPTION
50001	28	3	500 Gallon Saddle
50002	28	5	833 Gallon Saddle Pump & Control Plate
50003	28	6	Pump Guard
50004	28	7	Saddle Support 20 Ft. A-Frame
50010	26		11 Ft. Centre Boom
50012	36	15	Centre Boom Support Centre Boom Support
50012	38	15	Boom Clamp
50013	38	16	Boom Clamp
50013	40	16	Boom Clamp
50017	26	ì	50 Ft 18'2" Boom 60 Ft 23'2" Boom
50022	26	t t	60 Ft 23'2" Boom 70 Ft 28'2" Boom
50024 50027	26	-	80 Ft 33'2" Boom
50037	30	1	1" Hose x 180" Right & Left Boom 1" Hose x 216" Right & Left Boom
50038	30	1	
50039	30	1 2	1" Hose x 252" Right & Left Boom 1" Hose x 52" Centre Boom
50040 50041	30	2	1" Hose x 108" Centre Boom
50042	30	14	1½" Hose x 15" Filter
50043	30	22	1" Hose x 3½" Regulator Valve 1½" Hose x 32" Anti-Vortex
50044	30	23	15" Hose x 32" Anti-Vortex
50044	30	23	15" Hose x 66" Anti-Vortex
50045	32	9	15" Hose x 66" Anti-Vortex
50046	30	23	lig" Hose x 87" Anti-Vortex
50046	32	9	1½" Hose x 87" Anti-Vortex 1" Hose x 42" Agitator
50047 50047	32	4	1" Hose x 42" Agitator
50048	30	31	1" Hose x 84" Agitator
50048	32	4	1" Hose x 84" Agitator 1" Hose x 101" Agitator
50049	30	31	1" Hose x 101" Agitator 1" Hose x 101" Agitator
50049 50050	36	10	Wing Tube Clamp
50050	38	10	Wing Tube Clamp
50054	28	14	SK Guard & Step Support Saddle Support 20 Ft. A-Frame
50055 50057	28	7	SK Guard & Step Support (HB)
50057	40	11	Back PVC Boom Clamp for HPB
50058	40	10	Front PVC Boom Clamp for HPB
50059	40	4	Rubber Hose 1" x 30" 11 Ft. Centre Boom (HPB)
50060 50061	26		50 Ft 16'5" Boom
50062	26		60 Ft 21'8" Boom
50063	26		70 Ft 24'7" Boom 80 Ft 32'4" Boom
50064 50065	26	15	80 Ft 32'4" Boom Centre Boom Support for HPB
50066	26	13	80 Ft 33'0" Boom
50067	26		90 Ft 38'0" Boom
50068	26	39	100 Ft 43'0" Boom 1½" Hose ½" M - ½" M x 96"
90218 93000	30	1	500 Gallon Tank
93001	28	2	833 Gallon Tank
93002	28	8	Tank Lid Tank Lid Strainer
93003	28	9	Centre Cover
93004	28	13	Tank Webbing Support Kit
93006	36	1	1" PVC Cap 1" FPT
93006	38	1	1" PVC Cap 1" FPT 1" PVC Cap 1" FPT
93006 93007	36	1 2	1" PVC Cap 1" FP1 1" PVC Adaptor 1" MPT, 1" SOC
93007	38	-2	1" PVC Adaptor 1" MPT, 1" SOC
93007	40	2	1" PVC Adaptor 1" MPT, 1" SOC
93011	36	6	1" PVC Adaptor 1" FPT, 1" SOC 1" PVC Adaptor 1" FPT, 1" SOC
93011 93011	38	6	1" PVC Adaptor 1" FPT, 1" SOC
93011	30	32	1" PVC Hose Barb, 1" MPT
93012	36	7	1" PVC Hose Barb, 1" MPT
93012	38	7	1" PVC Hose Barb, 1" MPT 1" PVC Hose Barb, 1" MPT
93012	40	7	1" PVC Hose Barb, 1" MPT 1" PVC Tee
93013	36	17	1" PVC Tee
93013	40	17	1" PVC Tee
93015	34	1	Screws Upper Clamp
93016	34	2	O-Ring
12021	1		

PART #	PAGE	ITEM	DESCRIPTION
		4	Main Body
93018 93019	34	5	TeeJet Strainer
93020	34	6	Seat Washer
93021	34	7	Sprayer Tip (11003LP) Cap (Yellow) [Other colors avail]
93022 93023	34	8 9	Retainer
93023	34	10	End Cap
93025	34	11	Diaphragm 1" Gear Clamp HS16
93029	30	3	1" Gear Clamp HS16
93029 93029	36	5	1" Gear Clamp HS16
93029	38	5	1" Gear Clamp HS16
93029	40	5	1" Gear Clamp HS16 Solenoids
93031 93035	30	9	Nipple 3/4" MPT
93036	30	10	00: Flbow 1 1/4" FPT
93037	30	11	Reducer Bushing $1\frac{1}{4}$ " MPT, $3/4$ " FPT $1\frac{1}{4}$ " Hose Barb, $1\frac{1}{4}$ " MPT
93038	30	12	15" Gear Clamp HS24
93039 93039	32	8	11" Coar Clamp HS24
93040	30	15	solenoid Harness C/W Nut & Nippic
93040	32	13	Solenoid Harness c/w Nut & Nipple Filter
93041	30	16	Hyd Motor c/w Pump 9303C-HM1
93042	30	17	Hyd Motor c/w Pump 9303C-HM2
93044	30	17	Hyd. Motor c/w Pump 9303C-HM3 Centrifugal Pump
93045	30	18	Tee 3/4" FPT
93046 93047	30	20	Regulator Valve
93048	30	21	90° Elbow 3/4" MPT 1" Hose Barb
93049	30	24	1½" Hose Barb, 1½" MPT 1½" Hose Barb, 1½" MPT
93049 93050	32	7 25	1½" Ball Valve (Anti-Vortex)
93051	30	26	Ninnle 1k" MPT
93052	30	27	90° IElbow 3/4" MPT. 1" Hose Barb 90° Elbow 3/4" MPT, 1" Hose Barb
93052	32	2 28	Reducer Bushing 15" MPT, 12" FDT
93053 93054	30	29	Reducer Bushing 14" MPT, 1"
93056	30	33	1" Hose Valve
93057	30	34	Nipple 1½" MPT Tee 1½" FPT
93058	30	35	Nipple 14" MPT
93059	30	37	11" Ball Valve (Throttle)
93061	30	38	Hyd. Motor Port Adaptor c/w Valve
93062	30	6	Nipple 1½" MPT x 4" Metering Orifice
93063 93064	30	8	Agitator
93065	32	5	Anti-Vortex
93066	32	6	90° Elbow 1½" MPT, 1½" FPT
93067	32	883785	Sprayer Control Monitor Sprayer Control Harness Monitor
93068 93069	32	10000000	Sprayer Control Harness Monitor Ext.
93071	32		Nipple 3/4" MPT x 6"
93072	32		Coupler 3/4" MPT 1" PVC Adaptor 1" SOC
93073	36	1	Rubber Hose x 19"
93074	38		Rubber Hose x 19"
93079	38	18	1" PVC Elbow Hose Barb 1" MPT
93079	40		1" PVC Elbow Hose Barb 1" MPT 1" Hose Barb 1/2" MPT
93085	30		1/2" Nylon Plug
93096	30	30	13" Tee c/w Two 3" Side Ports
B5C0616P			Bolt 3/8" x 1" Bolt 3/8" x 1"
B5C0616P			Bolt 3/8" x 1" Bolt 3/8" x 1"
B5C0628F		and the second	Bolt 3/8" x 1 3/4"
B5C0628F	38	3 14	Bolt 3/8" x 1 3/4"
B5C0628F	4(1 1122	Bolt 3/8" x 1 3/4"
LN5C06P	30	30 10 10 10 10 10 10 10 10 10 10 10 10 10	Locknut 3/8" Locknut 3/8"
LN5C06P	4	20 P. C. C. C. C. C. C. C. C. C. C. C. C. C.	Locknut 3/8"
LN5C08P	2	B 12	Locknut 1/2"
UB069684		6 11	U-bolt 3/8" x 6" x 5 1/4" U-bolt 3/8" x 6" x 5 1/4"
UB069684 UB08481			(U-bolt 1/2" x 3" x 7" (HB)
UB08501			U-bolt 1/2" x 3" x 9" (HPB)



P.O.Box 307 VONDA, Saskatchewan SOK 4NO (306)258-2233

TO THE OWNER:

Congratulations on the purchase of your new LAURIER FIELD SPRAYER.

Constructed of the finest quality materials, your LAURIER FIELD SPRAYER is engineered and designed to do normal spraying operations effectively and efficiently, and to provide you with years of dependable service.

Be sure to read the instructions in this manual for adjusting and operating your LAURIER FIELD SPRAYER. A few moments to acquaint yourself with the LAURIER FIELD SPRAYER and its maintenance requirements will save you precious time in the field and protect your machinery investment. Should you in time, need replacement parts, please consult the parts list in this manual and contact your LAURIER dealer.

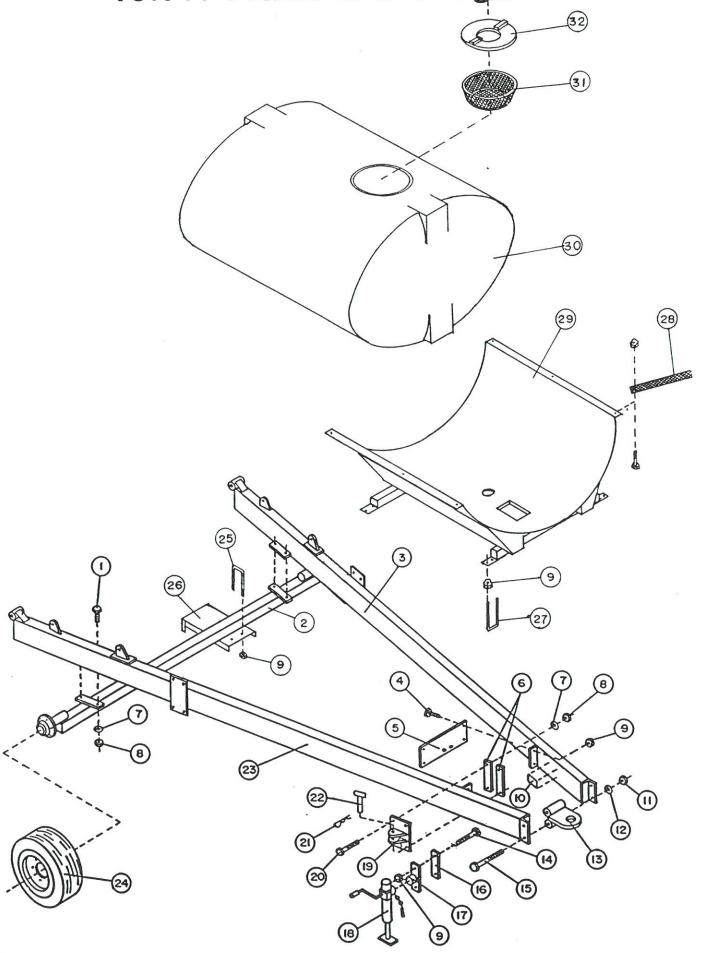
HIGH LINE MFG. INC.

It is the policy of HIGH LINE MFG. INC. to improve its products whenever it is possible and practical. We reserve the right to make changes or add improvements, at any time, without incurring any obligation to make such changes on machines previously sold.

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15ft A-Frame c/w 500gal Tank



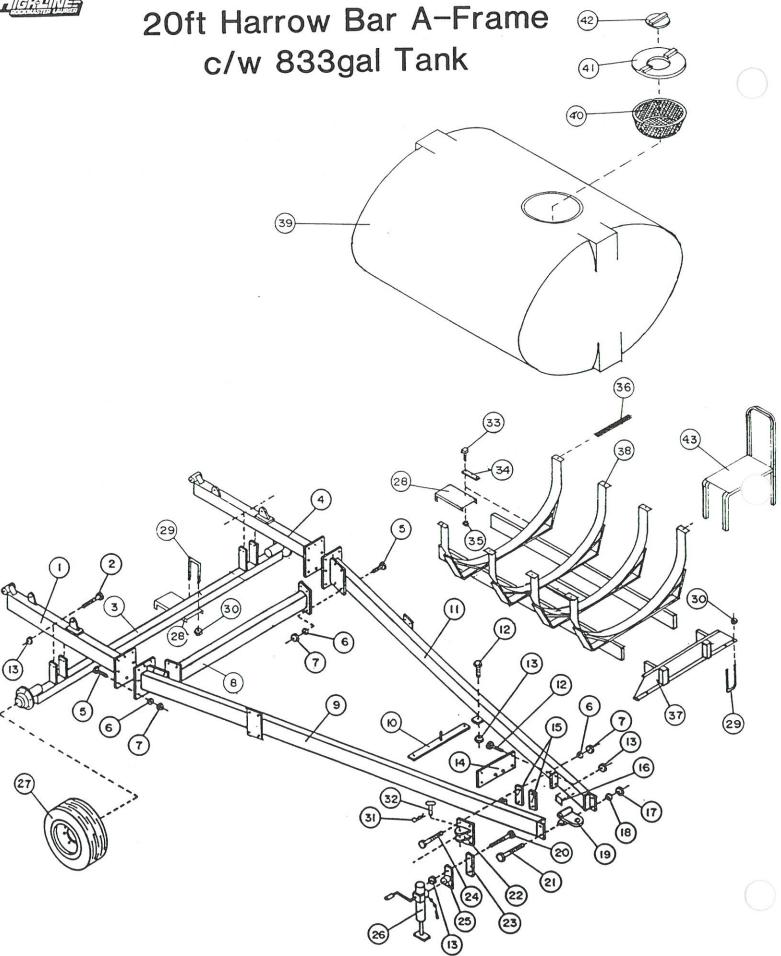


15ft A-Frame c/w 500gal Tank

NOTE: LEFT & RIGHT ARE DETERMINED WHEN FACING REAR OF THE MACHINE. DO NOT TIGHTEN BOLTS UNTIL ALL PARTS ARE IN PLACE.

- A. Install wheels to axle frame #2 and secure with wheel bolts.
- B. Bolt axle frame to left and right hitch (#3,#23) with 5/8" x 2" Bolts.
- C. Bolt cross plate #5 to left and right with 1/2" x 1 1/2" bolts #4.
- D. Install bolts on draw hitch #13 to left and right hitch using 1" x 7 1/2" bolts #15.
- E. Sidewing jack #18 is optional.
- F. Mount tank #30 and saddle #29 to A-Frame using four (4) 1/2" x 3" x 7" u-bolts, for 15 ft. only, 500 gal. tank.
- G. Tank webbing support kit is to tie down tank to the saddle #28.







20ft Harrow Bar A-Frame c/w 833gal Tank

NOTE: LEFT & RIGHT ARE DETERMINED WHEN FACING REAR OF MACHINE.

DO NOT TIGHTEN BOLTS UNTIL ALL PARTS ARE IN PLACE.

- A. Install wheels to axle frame #3 and secure with wheel bolts.
- B. Bolt axle frame to left and right hitch tube (#1,#4), 23" from pivot hinge on hitch tube to centre of wheel axle, bolt axle with 1/2" x 4 1/2" bolts.
- C. Bolt left and right hitch (#9,#11) to left and right hitch tube using 5/8" x 1 3/4" bolts #5.
- D. Bolt cross member #8 to left and right hitches 5/8" x 1 3/4" bolt #5.
- E. Bolt cross angle #10 and cross plate #14 to left and right hitch using 1/2" x 1 1/2" bolts, #12.
- F. Install bolts on draw hitch #19 to left and right hitch using 1/2" x 7 1/2" bolts #21.
- G. Side jack #26 is optional.
- H. Mount tank #39 and dsddle #38 to A-Frame using four (4) 1/2" x 3" x 7" u-bolts #29 for 20 ft. A-Frame. Remember to place tank lid in front of machine. Do not tighten U-Bolt.
- I. Tank webbing support kit is to tie down the tank to the saddle #36.



20ft Harrow Packer A-Frame c/w 833gal Tank 37 6 (17) 27 (19) 25

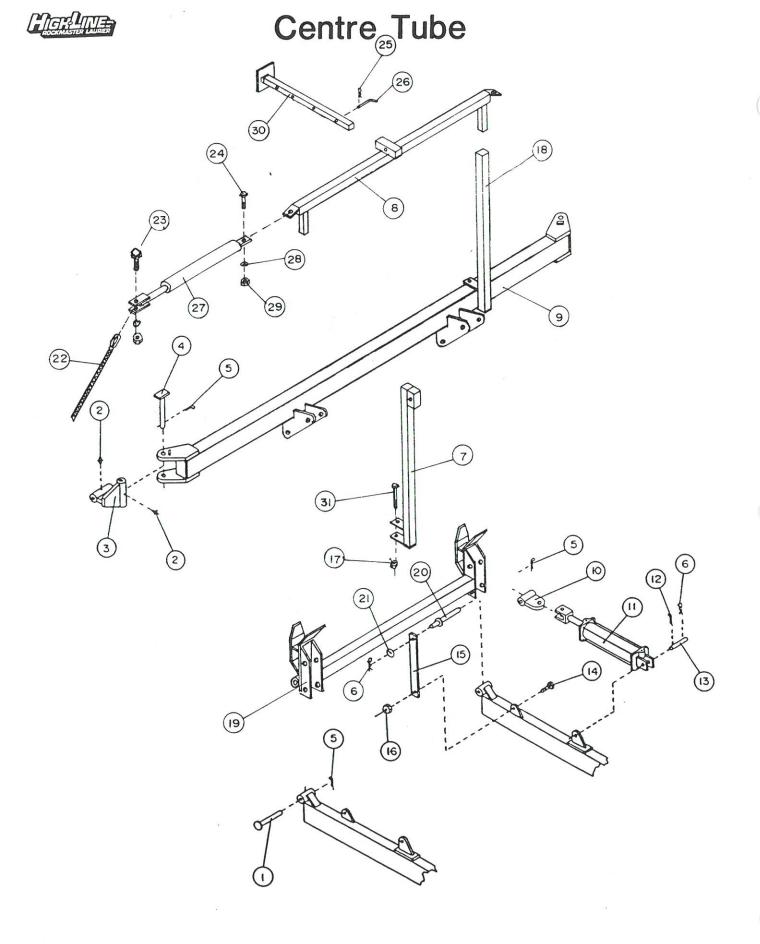


20ft Harrow Packer A-Frame c/w 833gal Tank

20 Ft. HARROW PACKER BAR A-FRAME c/w 833 Gal. TANK

NOTE: LEFT AND RIGHT DETERMINED WHEN FACING REAR OF MACHINE.
DO NOT TIGHTEN BOLTS UNTIL ALL PARTS ARE IN PLACE.

- A. Bolt left and right hitches (#13,#18) to right and left hitch tube (#8,#12) with 5/8" x 1 3/4" bolts.
- B. Bolt cross members (#11) to left and right hitches with 5/8" x 1 3/4" bolts.
- C. Bolt cross angle (#15) and tension spring plate (#21) to left and right hitches with 1/2" x 1 1/2" bolts.
- D. Bolt on items (#16,23,24,25,26 & 27) only if no Auto Fold is used, otherwise follow auto fold directions.
- E. Install bolt on draw hitch (#20) to left and right hitches with 1" x 7 1/2" bolts.
- F. Install Wheels to oscillating axles (#4). Secure wheels with wheel bolts.
- G. Bolt oscillating axle to left and right hitch tubes, 23" from pivot hinge on hitch tubes to centre of wheel axle with 1/2" U-bolts (#9) and oscillating axle pockets (#6).
- H. Mount tank (#37) and saddle (#32) to A-Frame using four 1/2" x 3" x 7" U-bolt (#9) for 20 ft. Remember to place tank lid to front of machine. Do not tighten U-bolts.
- I. Tank webbing support kit is to tie-down the tank to the saddle.



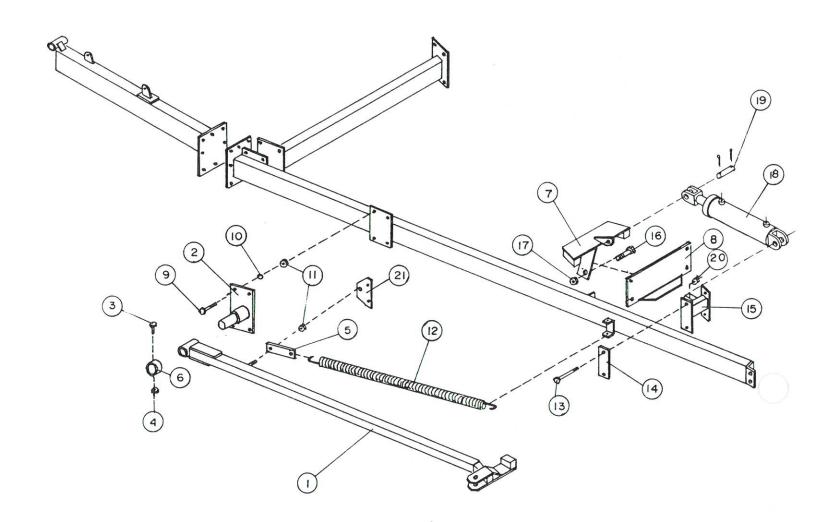


Centre Tube

- A. Secure quick attachment #19 to A-Frame using pins #1.
- B. Tighten all bolts on hitch.
- C. Attach the centre tube #9 to the quick attach with pins #1. Secure cylinder swivel bracket #10 to centre tube using pins #20.
- D. Position cylinder #11 rod end to swivel bracket using pins #13.
- E. Place cylinder lock #19 in place and secure with 3/4" x 2" Gr. 8 bolts. Tighten to allow lock plate to move freely.
- F. Place left and right knuckles #3, grease nipples in up position and secure in place with pins #28, $1\ 1/4$ " x 8 3/4" to centre tube.
- G. Attach right and left support arm (#7,#18) to centre tube #9 rear. Support #8 slides on the end of support arm.
- H. Stabilizer jack #30 is secured with a pin #10.
- I. Quick attachment #19 is attached to the A-Frame and centre tube #9 with pins #15.
- K. Secure cable tensioner #27 to rear support #8 with 3/4" x 2" bolt #24. The other end attaches to cable #22 with 3/4" x 3" bolt #23.



Two Peice Auto Fold





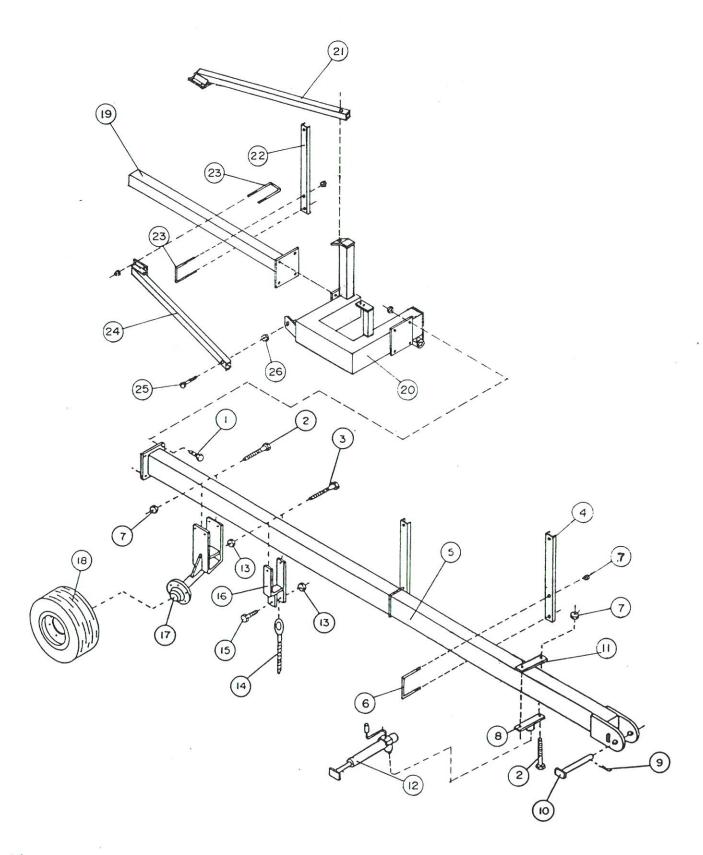
Two Peice Auto Fold

NOTE: DO NOT TIGHTEN BOLTS UNTIL ALL PARTS ARE IN PLACE.

- A. Bolt autofold A-Frame bracket right #2 to the 15 ft. or 20 ft. A-Frame as shown. Autofold right arm #1 on collar and bolt shaft collar #6 with 1/4" x 2 1/4" bolt. Do the same for left side.
- B. Install cylinder bracket #15 complete with backing plate #14 and 1/2" x 4 1/2" bolt #13.
- C. Bolt cross plate #8 to A-Frame.
- D. Bolt #7 front lock to cross plate #8.
- E. Attach 2" x 48" spring #12 to autofold arm #1 and A-Frame.
- F. Attach 2" x 8" cylinder #2 to frontlock #7 and cylinder lug bracket #15.
- G. Split wing 90 ft. and 100 ft. , the double spring is needed to lock autofold #21.



Wing Tube



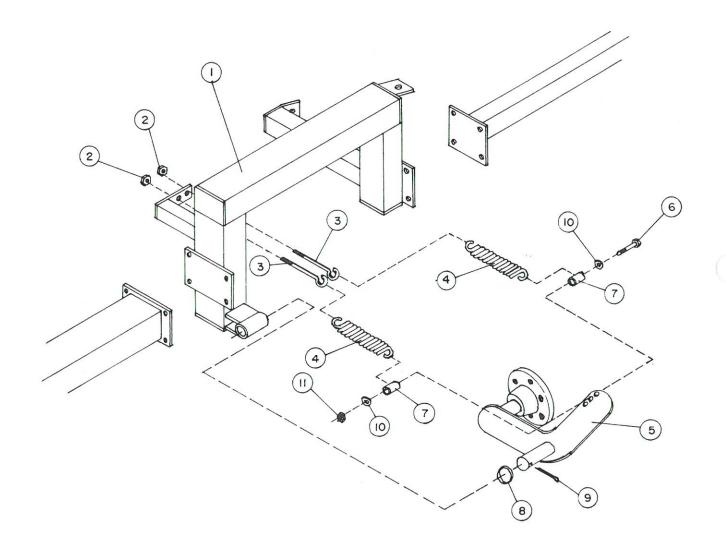


Wing Tube

- A. Secure wing tube #15 to centre tube knuckle with knuckle pins #10, (1 1/4" x 7 1/4"). Place wing tube pin stop facing outwards.
- B. Loosely bolt transport wheel #17 to wing tube using 1/2" x 6" bolts, #2.
- C. Bolt and install wheels #18.
- D. Bolt standard jack #12 on to wing tube with 1/2" x 6" bolt #2.
- E. Loosely bolt cable bracket #16 to wing tube using 3/4" x 6 1/2" bolt #3. Place cable bracket in front of transport wheels.
- F. Secure boom wheel #20 to wing tube #5. Do not tighten bolts until the apparatus is all together.
- G. Bolt boom extention arm #19 to the end of the boom wheel. For longer sprayer unit, attach boom extention braces #21 and #24.
- H. Sprayer arms #4 are u-bolted #6 to wing tube #5. Different arms are needed for the boom extention #19. Attach sprayer arm #22 to boom extention with U-bolt #23.



Boom Wheel



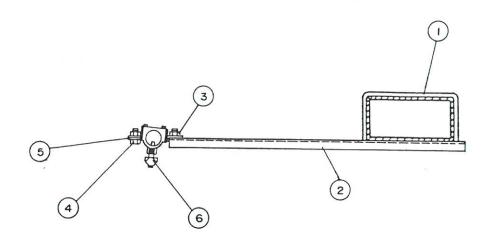


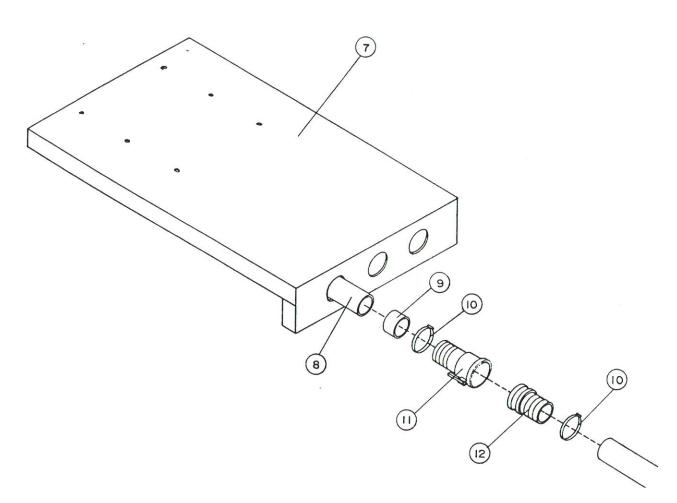
Boom Wheel

- A. Secure boom wheel #1 to wing tube. Do not tighten bolts until the apparatus is all together.
- B. Attach eye bolts #3 to spring #4 and attach them to boom wheel.
- C. Secure bolt #6 with special collar #7 for the springs.
- D. Install wheel.
- E. Bolt boom extention arm to the end of the boom wheel.
- F. Tighten all bolts.



Boom Bracket & Quick Coupler





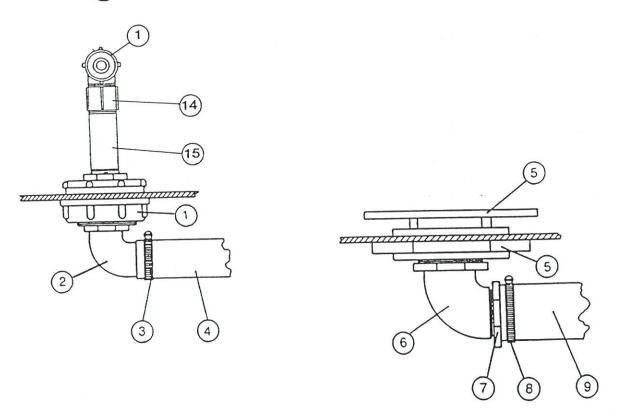


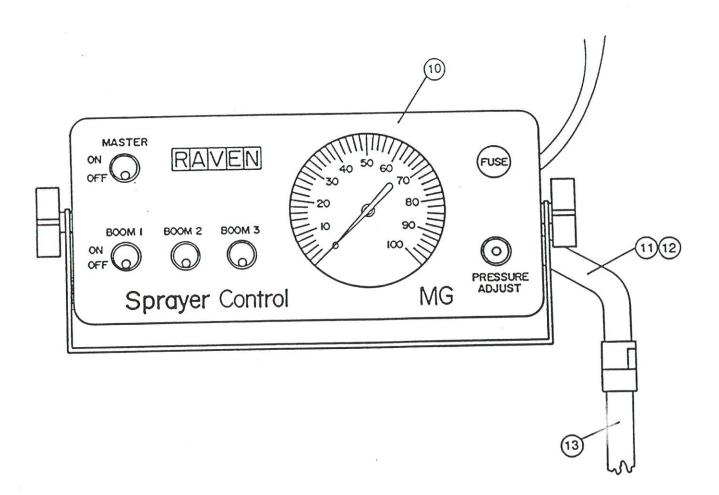
Boom Bracket & Quick Coupler

- A. Attach boom clamp #5 to sprayer arm #2. Put PVC boom in and bolt #4. Install all nozzles in predrilled PVC pipe.
- B. Attach plate to A-Frame as shown on 15 ft. and 20 ft. A-Frame. Cut hoses going to left boom, right boom and centre boom. Attach quick coupler female end #11 to hose from tank with c-clamp #10 and quick coupler male #12 to hose from the booms.



Agitator, Anti-Vortex & Control Monitor







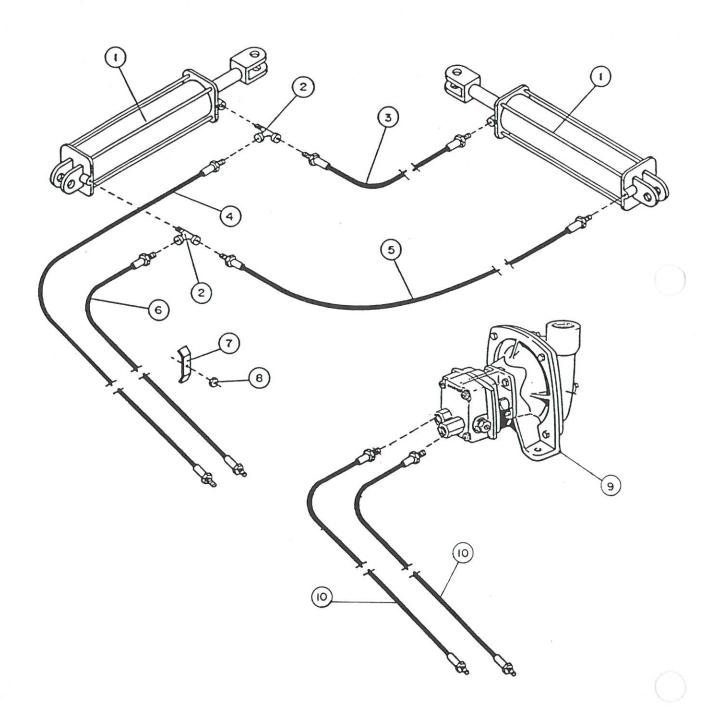
Agitator, Anti-Vortex & Control Monitor

A. Install 3/4" agitator #1 assembly to the inside bottom of tank. Also install 2" anti-vortex #5 to the inside bottom of tank. Screw in 3/4" x 90° elbow #2 in agitator assembly and also screw in 1 1/2" x 90" elbow #6 into anti-vortex assembly. Secure with silicone or tape. Barb ends should be facing front of machine. Connect 1" hose #4 to agitator assembly plus install 1 1/2" hose #9 to anti-vortex. While under tank connect 1" hose to centre boom. Secure all hoses with hose clamps (#9,#3).

NOTE: For above lengths for hoses, turn to hose length chart on page .

B. Install sprayer control monitor to tractor ground monitor by using white wire. Red wire is for power preferably connected to fuses. Join sprayer control monitor harness to harness coming from solenoids on pumps and control plate. Longer harness is available if needed.

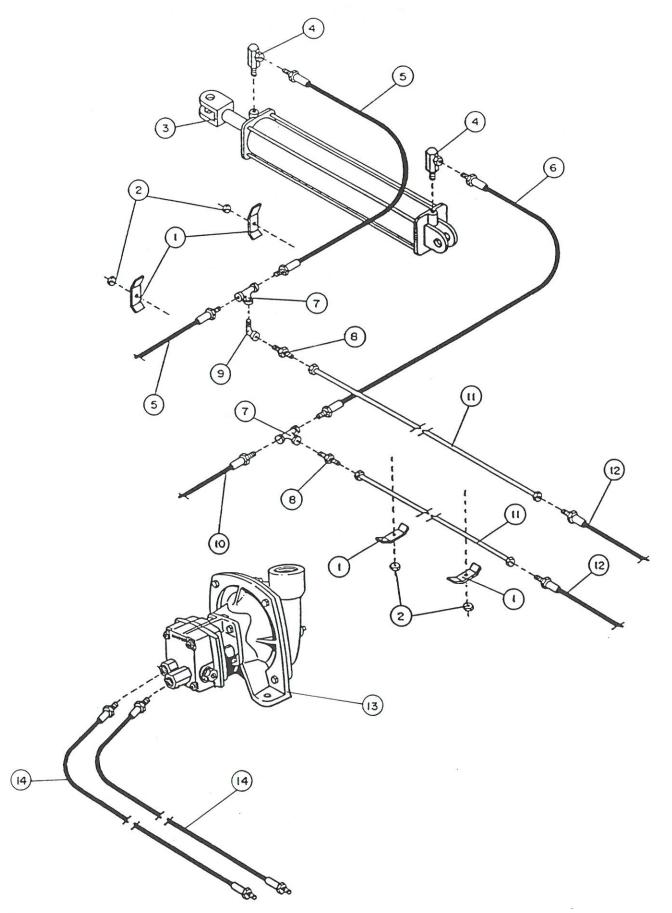






- A. Install cylinders #1, port holes inwards, rod end to swivel bracket.
- B. Install street tees #2 on right hand cylinder only.
- C. Install hoses as shown, checking parts list for correct lengths.
- D. Secure hoses to A-Frame hitch with hose clamps.
- E. Install hoses #10 to hydraulic motor c/w pump.







- A. Install cylinder #3, port holes upward, rod ends to swivel brackets.
- B. Install 90° swivel elbows #4 on cylinders.
- C. Install street elbows #9, tees #7, unions #8, to 1/2" hydraulic lines #11. Then install hydraulic lines to underside of A-Frame, but on top of pump plate, securing with hose clamps and passing through plates.
- D. Install hoses as shown checking parts list for right length.
- E. Install hoses #14 to hydraulic motor c/w pump.

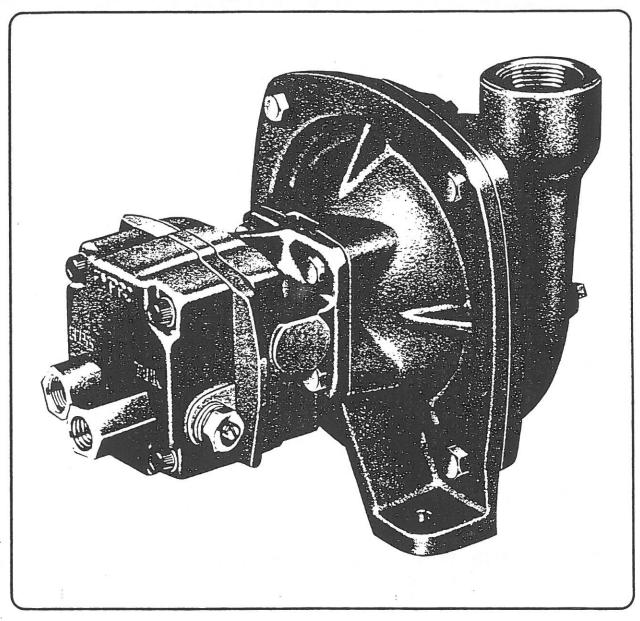


Notes

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Hypro Hydraulic Motor Driven Centrifugal Pump Selection Guide For Tractor Hydraulic Systems







On open center systems, installation of hydraulic motor driven centrifugal pumps may result in insufficient hydraulic pressures to operate other hydraulic equipment requiring higher hydraulic pressures, such as cylinders. If that occurs, it may be necessary to temporarily stop your hydraulic driven pump to restore the hydraulic system pressure to its normal operating pressure range.

On open center systems, as the engine speed changes, so does the hydraulic pump flow. For that reason, adjustments made on the hydraulic driven pump should be made with tractor engine speed as close as possible to what it will be operating at in the field. The hydraulic flow on some open center hydraulic systems also decreases when power steering is in use; consequently, so does centrifugal pump flow.

The tractor hydraulic system data contained in these tables should be used only as a guide. For assurance that any continuous duty equipment, such as hydraulic driven centrifugal pumps, will not overheat your hydraulic system, or for more detailed information, consult your tractor manufacturer.

IMPORTANT: Any closed center hydraulic system marked with L.S. is load sensing. All other closed center systems not marked are pressure sensing.

	Open or	Maximum	Maximum Flow Remote Outlets US GPM.	HYPRO PUMP MODEL			
Manufacturer and Model	Closed Center Type	Pressure Remote Outlets		HM1	HM2	НМ3	НМ4
	Agricultural	Tractors wi	th 2 Wheel [Drive			•
ALLIS CHALMERS	The state of the state of the	Sale 17 et l'Anne	and a start hand the state of	With the second	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	to Commence	
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(1) For spraying pressures in excess of 60 p.s.i. use HM1.

If directional valve lever kicks out, do not tie lever in operating position. Use next size larger hydraulic motor (HM3), or adjust directional valve detents.

If other implements are to be used, use smaller hydraulic motor, HM1.

(2) For spraying pressures in excess of 80 p.s.i., use HM4.

(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

CASE/DAVID BROWN	and the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of t	Section of the good	and the second of the second of the second			
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All 1972 model tractors & earlier have a maximum pressure of 2000 p.s.i.

Maximum flow capability is 15.5 GPM on some models equipped with larger hydraulic pump. On these models the centrifugal pump recommendation is the HM1.



	Open or Closed	Maximum Pressure	Maximum Flow Remote		HYPRO PU	MP MODEL	
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	нм3	нма

Agricultural Tractors with 2 Wheel Drive (continued)

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770	OPEN	1550	14-16 (1)	X	1		
870	OPEN	1550	14-16 (1)	X	1		
970	OPEN	1900	14-16 (1)	X			
1070	OPEN	2100	14-16 (1)	X			
1090	OPEN	2250	14-16	X			1
1170	OPEN	2250	14-16	X			
1175	OPEN	2250	14-16	X			
1190	OPEN	2200	7.25				
1194	OPEN	2200	7.25) X
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1294	OPEN	2200	7.25)
1370	OPEN	2200	20	(3)		×	1
1370 AFTER 1973	OPEN	2050	20	(3)		X	
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1394	OPEN	2200	15.2	x	+		+
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1494	OPEN	2200			1		
1570			15.2	X			
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1690	OPEN	2200	20.1			X	1
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2090	CLOSED (LS)	2250	22) ×
2094	CLOSED (LS)	2250	23		1) ×
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3594	CLOSED	2250	17	1) ×

⁽¹⁾ In 1971 model tractors and earlier the maximum flow is 14 GPM.
(2) For spraying pressures in excess of 60 p.s.i. use series HM2.
(3) If other implements are to be used use smaller hydraulic motor, HM1.
(4) For spraying pressures in excess of 80 p.s.i. use HM2.
(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

JOHN DEERE		化物件基本特别	4.24 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (A. 1944) 1 (
650 750	OPEN OPEN	1800 2000	4.5 5.8		X		(3)
820	OPEN	2100	6.5	1	x		(3)
830	OPEN	2100	6.5		x		(3)
850	OPEN	2100	5.0		x	1	(3)
850 AFTER 1979	OPEN	2100	6.5		x	1	(3)
950	OPEN	2100	5.0		X		(3
950 AFTER 1979	OPEN	2100	6.5		X	1	(3
1020	CLOSED	2250	6.5		X		(3
1020 AFTER 1979	CLOSED	2250	12		X	1	(3
1050	OPEN	2100	5.0		X	1	(3
1050 AFTER 1979	OPEN	2100	6.5		X		(3
1250	OPEN	2100	6.5		X		(3
1450	OPEN	2100	6.5	1	X	ĺ	(3
1650	OPEN	2100	6.5		X	1	(3 (3
1520	CLOSED	2250	6.5		X	1	(3
1520	CLOSED	2250	12			1	X
1530	CLOSED	2250	6.5		X		(3
1530	CLOSED	2250	12				×
2020	CLOSED	2250	6.5		X		(3
2020	CLOSED	2250	12		1		×
2030	CLOSED	2250	12	1	1 1	1	×
2030	CLOSED	2250	14		1		>
2040 (1)	OPEN	2100	6.5		X		(3
2040(2)	CLOSED	2250	12				X
2150	CLOSED	2350	13.5			1	X
2155	CLOSED	2320	22	1			X
2240	CLOSED	2250	12				X
2255	CLOSED	2350	13.5	1	1		X
2350	CLOSED	2350	13.5				X
2355	CLOSED	2320	22				X
2440	CLOSED	2250	12			1	X
2440	CLOSED	2250	14	1	1	1	X
2520	CLOSED	2250	14		1		X
2550	CLOSED	2250	13.5	1	1	1	X
2555	CLOSED	2320	22				X
2630	CLOSED	2250	12				X
2630	CLOSED	2250	14				X
2640	CLOSED	2250	12				X
2640	CLOSED	2250	14				X
2750	CLOSED	2350	19			1	X
2755 2840	CLOSED	2320	22	1			X
	CLOSED	2250	14				X
2940 2950	CLOSED	2250	14			1	X
2950 2955	CLOSED	2350	19		1		X
3020	CLOSED	2320	22	1] 1	1	X
	CLOSED	2250	14				X
3150 3155	CLOSED	2250	14				X
3133	CLOSED	2320	22	1	1 1	1	X



	Open or Closed	Maximum Pressure		HYPRO PUMP MODEL				
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	нмз	HM4	
(JOHN DEERE-continued)	Agricultural Trac	ctors with 2 V	Vheel Drive (co	ontinued)				
4000	CLOSED	2250	18	T	T	1	X	
4020	CLOSED	2250	18		1		X	
4030	CLOSED	2250	14		1		X	
4040	CLOSED	2250	18				X	
4050	CLOSED	2350	25.5		1		X	
4230	CLOSED	2350	18				X	
4240	CLOSED	2250	18				X	
4250	CLOSED	2350	25.5		1		X	
4320	CLOSED	2250	18		1	i	l x	
4430	CLOSED	2250	18	1	1	1	X	
4440	CLOSED	2250	18		1		X	
4450	CLOSED	2350	25.5		1	1	X	
4620	CLOSED	2250	18				X	
4630	CLOSED	2250	18		1		X	
4640	CLOSED	2250	18			1	X	
4650	CLOSED	2350	24				X	
4840	CLOSED	2250	18		1		X	
4850	CLOSED	2350	24				l x	
5020	CLOSED	2250	18	1	1		X	
6030	CLOSED	2250	18				Î	

Tractor serial numbers through 266749.
 Tractor serial numbers beginning with 266750.

(3) HM4 unit	interchangeable	e with	HM	12.
-				1000

UTZ	Against water at a constant	Commence of the second	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		C. 4-1 C.	Water Bridge
D3006	OPEN	2490	7.2(2)			
D4006	OPEN	2490	6.4(2)	1		1
D4506	OPEN'	2485	7.3(2)			1
D4507	OPEN	2500	8.7	X		
D5206	OPEN	2572	7.2 (2)	1 ^ 1		1
D5207	OPEN	2500	9.0	X		
D5506	OPEN	2490	Unknown (2)	 ^-		
D6006	OPEN	2490	Unknown (2)			
D6007 AFTER 1974	OPEN	2840	Unknown (2)			1
D6206	OPEN	2485	7.5 (2)			
D6507	OPEN	2500	9.7	x		
D6507C	OPEN	2500	.9.7	X		1
D6806	OPEN	2940	9.2(2)	1		
D7007	OPEN	2500	10.6	x		
D7206	OPEN	2939	Unknown (2)	1 "		
D7807	OPEN	2500	11	l x		
D7807C	OPEN	2500	lii	X		
D8006	OPEN	2485	8.6 (2)	1 "		
D8006 AFTER 1977	OPEN	2485	9.5 (2)			
D9006	OPEN	2490	Unknown (2)			
D10006	OPEN	2485	8.6 (2)			
D10006 AFTER 1977	OPEN	2485	10.5(2)			
D13006	OPEN	2485	10.8(2)	1		
D13006 AFTER 1978	OPEN	2485	11.5(2)			
DX4.70	OPEN	2500	12.4	X		
DX6.30	OPEN	2500	15.3	l x l		
DX6.50	OPEN	2500	14.8	× ×		1
DX7.10	OPEN	2500	18.2	1 "	1	K
DX90	OPEN	2485	14.7	x	1 '	``
DX110	OPEN	2485	14.7	l x l		
DX140	OPEN	2485	18.2	(1)	,	Κ
DX160	OPEN	2485	18.2	1 11		R

FORD	A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA	•	V V	W.		*25 *
1000	OPEN	1400	4.2	T	X(1)	1
1100	OPEN	1850	2.9		N.R.	
1110	OPEN	1850	4.1	1	X(1)	
1210	OPEN	1850	4.3	1	1 \$24	1
1300	OPEN	2133	4.3		X(1) X(1)	- 1
1310	OPEN	2100	6.3		1 ^(")	X
1500	OPEN	2133	4.0		X(1)	^
1510	OPEN	2100	6.6		1 ^(1)	
1600	OPEN	1400	4.2	1	V(1)	X
1700	OPEN	2133	5.3		X(1) X	1
1710	OPEN	2100	7.8	1	1 ^ 1	
1900	OPEN	2133	5.9		x	X
1910	OPEN	2100	8.6	X	1	(2)
2000	OPEN	2500	4	1 ^	X(1)	(2)
2600	OPEN	2100	8.5	V .	1 ~(")	(0)
2610	OPEN(3)	2000	8.5 (3)	l â	1	(2)
2910	OPEN	2500	7.7	^	1 1	(2)
3000	OPEN	2500	5."		1 v 1	×

DX160 OPEN 2485 18.2 (1) X

For spraying pressures in excess of 70 p.s.i. use smaller hydraulic motor, HM1.
These tractors have many optional hydraulic pumps available. Consult your tractor manual or dealer to determine flow available at remote outlet in your tractor. Flows 8 GPM or less use HM2.
Flows 8 GPM to 17 GPM use HM1.
Flows 17 GPM and over use HM3.
For spraying pressures over 70 p.s.i. the HM1 requires a minimum of 11 GPM, HM3 requires a minimum of 20 GPM.
Optional auxiliary hydraulic reservoir is recommended to prevent overheating.



	Open or Closed	Maximum Pressure	Maximum Flow Remote	HYPRO PUMP MODEL					
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	НМЗ	HM4		
FORD-continued)	Agricultural	Tractors with	2 Wheel Driv	e (continue	d)		-		
3600	OPEN	2100	8.5	X		T	(2)		
3610	OPEN(3)	2000	8.5(3)	X			(2)		
3910	OPEN	2500	7.7	1		i	(2) X		
4000	OPEN	2500	5	!	X	1	_ ^		
4100	OPEN	2100	8.5	X	^	i	(2)		
4110	OPEN(3)	2000	8.5 (3)	î			(2)		
4600	OPEN	2100	8.5	X		+			
4600-SU	OPEN	2100	8.5	î			(2)		
4610	OPEN(3)	2000	8.5 (3)	Î		1	(2)		
5000	OPEN	2500	6	^	v		(2)		
5600	OPEN	2100	9.7	x	X		(0)		
5610	CLOSED	2000	9.7 (4)	_ ^			(2) X		
6600	OPEN	2100	9.7	X		+			
6610	CLOSED	2000	9.7 (4)	^		1	(2) X		
6700	OPEN	2100	9.7 (4)	X					
6710	CLOSED	2000	9.7 (4)	^			(2)		
7000	OPEN	2500	6		X		X		
7600	OPEN	2100	9.7	×	^		(2)		
7610	CLOSED	2000	9.7 (4)	1		-			
7700	OPEN	2100	9.7	×			X		
7710	CLOSED	2000	9.7 (4)	^			(2) X		
8000	OPEN	2500	. 12	×		1			
8600	OPEN	2500	12	î					
8700	OPEN	2200	15.5	l î					
9000	OPEN	2500	16	x		-			
9600	OPEN	2500	16	î					
9700	OPEN	2200	15.5	ı î					
TW-5	OPEN	2500	16	î					
TW-10	OPEN	2200	16.2	0					
TW-15	OPEN	2500	15.3	X					
TW-20	OPEN	2200	15.5	Î Â		+			
TW-25	OPEN	2500	15.3	Î					
TW-30	OPEN	2200	15.5	Î					
TW-30 AFTER 1979	OPEN	2200	20	^					
TW-35	OPEN	2500	20			X			

⁽¹⁾ Maximum centrifugal pump volume 20 GPM at 40 p.s.i. on these systems.
(2) For spraying pressures in excess of 50 p.s.i. use smaller hydraulic motor, HM4.
(3) Optional 13.6 GPM pump package available (closed center)
(4) Optional 17.5 GPM pump package available (closed center)

ERNATIONAL HARVESTER	支持等等的結構。	A STATE OF THE STATE OF	不可求性明治的 。	医食品 医肾	n is and in	- v2.00-1-1	100
140 284 354 364 364 AFTER 1977 384	OPEN OPEN OPEN OPEN OPEN OPEN	1200 1750 2400 2400 2400 2400 2400	566699	××	(6) X X		
454 464 464 (1975) 464 AFTER 1975 484 544	OPEN OPEN OPEN OPEN OPEN OPEN	2300 2300 2500 2500 2500 2500 1600	9 9 9 10.5 10.5 15 (2)	X X X X			
574 574 AFTER 1975 584 656 664 666	OPEN OPEN OPEN OPEN OPEN OPEN	2500 2500 2500 2500 2000 1600 1600	9 9.5 9.5 15 (2) 16 (2) 15 (2)	X X X X			
674 674 AFTER 1975 684 686 HYDRO-70 756	OPEN OPEN OPEN OPEN OPEN OPEN	2500 2500 2500 1550 1350 1550	9 10.5 10.5 15 (2) 15 (2) 12 (4)	X X X X		(5)	
766 766 AFTER 1975 784 HYDRO-84 HYDRO-86 HYDRO-86 AFTER NOV., 1980	OPEN OPEN OPEN OPEN OPEN CLOSED (LS)	2000 2000 2500 2500 1550 2650	12 13 10.5 10.5 15 (2)	X X X		(0)	
826 HYDROSTATIC 826 GEAR DRIVE 856 886 886 AFTER NOV., 1980 966	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	1550 2000 2000 2250 2650 2000	12 12 12 12 12 18 12	X X X			
966 AFTER 1975 HYDRO-100 * 986 * 986 AFTER 1978 986 AFTER NOV., 1980 * HYDRO-186	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	2000 2000 2250 2250 2650 2650 2250	13 13 12 13 18 18	X X X			



	Open or Closed	Maximum Pressure	Maximum Flow Remote		HYPRO PU	MP MODEL	
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	нмз	HM4
IH-continued)	Agricultural Trac	ctors with 2 V	Wheel Drive (co	ontinued)			
HYDRO-186 AFTER NOV., 1980 1026 1066 1086 1086 AFTER 1977 1086 AFTER NOV., 1980	CLOSED (LS) OPEN OPEN OPEN OPEN OPEN COPEN CLOSED (LS)	2650 2000 2000 2450 2450 2650	18 . 12 . 12 . 13 . 12 . 18	X X X			X
1456 1466 1486 1486 AFTER 1977 1486 AFTER NOV. 1980 1566	OPEN OPEN OPEN OPEN CLOSED (LS) OPEN	2000 2250 2450 2450 2650 2650 2250	12 12 13 12.3 18	X X X			х
1568 * 1586 * 1586 AFTER 1977 1586 AFTER NOV., 1980 3088 3288	OPEN OPEN OPEN CLOSED (LS) OPEN OPEN	2250 2450 2450 2650 2250 2250	13 13 12.3 18 15	× × ×			×
3388 3488 3588 3688 5088 5288 5488	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2650 2600 2650 2600 2600 2600 2600	18 18.6 18 18.6 25 25				X X X X

(1) For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor, HM4.
(2) 15-16 GPM for tractors without 3 point hitch. 8.5 GPM for tractors with three point hitch.
(3) For tractors with three point hitch where spraying pressures in excess of 50 p.s.i. use HM4.
(4) Optional 17 GPM hydraulic pump available for this system.
(5) For tractors with optional 17 GPM hydraulic pump use HM3 where spraying pressures up to 60 p.s.i. are sufficient.
(6) Maximum centrifugal pump volume 30 GPM at 40 p.s.i. on this system.
(7) For tractors built prior to November 1980. International Harvester Service Bulletin S-3436 dated 31 March 1977 advises that continuous hydraulic demand on the remote outlet valves, such as that created by hydraulic motors, can cause damage to the tractor hydraulic system. In gear driven tractors (86 Series, 2 wheel drive), the MCV pump charge circuit would not be receiving its normal flow and in Hydrostatic drive tractors, the oil cooler circuit would not be receiving its normal flow.
(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

MASSEY-FERGUSON		Medical Carrier	· 1.00 - 1.00 X 40 30		* 1/ 1/ + 1/ 4/	In a Standard
MF130-D MF135-G MF135-D MF150-G MF150-D MF165-G	OPEN CLOSED CLOSED CLOSED CLOSED CLOSED (3)	2000 3000 3000 3000 3000 3000	4 4 (6) 4 (6) 4 (6) 4 (6) 4 (1)		X (5) X (5) X (5) X (5) X (5) X (5)	
MF165-G AFTER 1972 MF165-D MF165-D AFTER 1972 MF175-G MF175-G AFTER 1972 MF175-D	CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3)	3000 3000 3000 3000 3000 3000	4 (2) 4 (1) 4 (2) 4 (1) 4 (2) 4 (1)	9	X (5) X (5) X (5) X (5) X (5) X (5)	
MF175-D AFTER 1972 MF180-G MF180-G AFTER 1972 MF180-D MF180-D AFTER 1972 MF205	CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) CLOSED (3) OPEN	3000 3000 3000 3000 3000 1700	4 (2) 4 (1) 4 (2) 4 (1) 4 (2) 5 (6)		X (5) X (5) X (5) X (5) X (5) X	
MF210 MF220 MF230-D MF230-G MF235-D MF235-E	OPEN OPEN CLOSED CLOSED CLOSED (3) CLOSED (3)	1700 1700 3000 3000 3000 3000 3000	5.4 (6) 5.4 (6) 4 (6) 4 (6) 4.5 (2) 4.5 (2)		X X X (5) X (5) X (5) X (5)	
MF235-G MF245-D MF245-G MF254 MF255-D MF255-G	CLOSED (3) CLOSED (3) CLOSED (3) OPEN CLOSED (3) CLOSED (3)	3000 3000 3000 2400 3000 3000	4.5 (2) 4.5 (2) 4.5 (2) 9.2 4 (2) 4 (2)	x	X(5) X(5) X(5) X(5) X(5)	
MF265-D MF270 MF274 MF275-D MF285 MF290	CLOSED (3) OPEN OPEN CLOSED (3) CLOSED (3) OPEN	3000 2400 2400 3000 3100 2400	4 (2) 9.5 9.4 4 (2) 7 (2) 9.5	××	X(5) X(5)	
MF294 MF298 MF670 MF690 MF698 MF699	OPEN OPEN OPEN OPEN OPEN OPEN	2400 2400 2400 2400 2400 2400 2400	9.5 9.5 9.5 9.5 9.5 9.5	X X X X		
MF1080-D MF1085 MF1100-D MF1105 MF1130-D MF1135	CLOSED (3) CLOSED (3) CLOSED CLOSED CLOSED CLOSED CLOSED	3100 3100 2100 2100 2100 2100	7(1) 7(2) 20(4) 20(4) 20(4) 20(4) 20(4)		×	× × ×



	Open or Maximum Closed Pressure	Maximum Flow Remote	HYPRO PUMP MODEL				
Manufacturer and Model	Center Type	Remote Ou	Outlets US GPM.	HM1	HM2	нмз	НМ4
(MASSEY FERGUSON-continued) Ag	ricultural Tractor	rs with 2 Wh	neel Drive (con	itinued)			
MF1150-D	CLOSED	2100	. 20(4)			T	X
MF1155	CLOSED	2100	20 (4)		i		X
MF2675	OPEN	2250	14			X	
MF2700	OPEN	2250	14			X	
MF2705	OPEN	2250	14	X			
MF2745	OPEN	2250	14	X			
MF2775	OPEN	2250	14	X		1	
MF2800	OPEN	2250	14	X			
MF2805	OPEN	2250	14	X			
MF3505	OPEN	2400	13	X		i	
MF3525	OPEN	2400	13	X		i	
MF3545	OPEN	2400	13	X		i	

(1) Optional auxiliary pump available 8 GPM 2500 p.s.i. open center use HM4
(2) Optional auxiliary pump available 10 GPM 2500 p.s.i. open center use HM4
(3) Tractors with optional auxiliary system - open center.
(4) 5-20 GPM with flow control.
(5) Maximum centrifugal pump volume 20 GPM at 40 p.s.i. on these hydraulic systems.
(6) Remote flow available through an accessory switch valve that diverts lift system flow to remote outlets—open center.
(7) On all Massey Ferguson hydraulic systems. Consult tractor dealer for special plumbing instructions.
(8) Watch hydraulic temperature closely when using continuous duty equipment such as hydraulic motors, to prevent overheating hydraulic system.

INEAPOLIS-MOLINE — All Moli	ne, Oliver & White tractors red	quire auxiliary cool	ers for continuous dut	y equipment, s	uch as hydra	ulic motors.
• JET STAR THREE • U302 • M670 SUPER • G350 • G450 • G550	OPEN OPEN OPEN OPEN OPEN OPEN	1550 1700 2000 2100 2133 2050	14 15 20 5.75 5.75 Unknown	×	××	x *
G750 G850 G940 G950 G1050 G1350	OPEN CLOSED CLOSED CLOSED CLOSED CLOSED	2050 2200 2000 2000 2000 2000 2000	Unknown 18 18 18 18 18		X X X X	

For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

OLIVER - All Moline, Oliver &	White tractors require auxiliary c	oolers for continuo	ous duty equipment, s	uch as hydraulie	motors.	19 1 1 -
* 550 * 1255 * 1265 * 1355 * 1365 * 1555	OPEN OPEN OPEN OPEN OPEN OPEN	1700 1700 2130 2200 2130 2050	Unknown 4.5 5.75 5.75 5.75 11	×	X X X	(1)
* 1655 * 1755 * 1855 * 1955	OPEN CLOSED CLOSED CLOSED	2050 2200 2200 2200 2200	11 18 18 18	Х	X X X	(1)
* 2050-2150 * 2155	OPEN CLOSED	2050 2000	11 18	X	×	(1)

*For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

(1) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently so is centrifugal pump output.

WHITE - All Moline, Oliver & Wh	ite tractors require auxiliary co	polers for continuou	us duty equipment, s	such as hydraulic	motors.	
• 700 • 1355 • 1365 • 2-30 • 2-35 • 2-45	OPEN OPEN OPEN OPEN OPEN OPEN	3400 3400 3400 2130 2130 2275	5.5 5.5 5.5 5.4 5 8.5		X X X X	(1) (1) (1) X
• 2-50 2-55 • 2-60 • 2-62 2-65 • 2-70	OPEN OPEN OPEN OPEN OPEN OPEN	2130 2400 2130 2275 2400 2130	5.5 11.9 5.5 8.5 11.9 5.5	x x	x x	x
* 2-70 ROW CROP 2-75 * 2-85 2-88 * 2-105 2-110	OPEN OPEN CLOSED CLOSED CLOSED CLOSED	2050 3000 2250 2250 2250 2250	11 (4) 12 18 (2) 21 18 (2) 21	X		(1) X X X
* 2-135 * 2-150 * 2-155 * 2-180	CLOSED CLOSED CLOSED CLOSED	2300 2250 2300 2300	20 (2) 20 20 (2) 20 (2) 20 (3)			X X X

*For use with continuous duty equipment such as hydraulic motors, auxiliary coolers are required.

(1) For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor HM4.

(2) After 1979 availability at remote increased to 21 GPM.

(3) Do not exceed 6 GPM continual draw at remote outlet or 80 p.s.i. dead head pressure on pump.

(4) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently so is centrifugal pump output.



	Open or	Maximum	Maximum Flow	2004-1104 - 25 1102-110	HYPRO PU	MP MODEL	
Manufacturer and Model	urer and Model Center Type	Pressure Remote Outlets	Remote Outlets US GPM.	HM1	HM2	нмз	HM4

Agricultural Tractors with Front Wheel Drive Option

ALLIS CHALMERS	· 大学、安全的 1867年,第一次第二次	· 100 11 11 11 11 11 11 11 11 11 11 11 11	Martin - Miles Co.		Contract of the		
220 5020 5050	OPEN OPEN OPEN	2000 1900 2200	18 5.4 6.23	(1)	X X	X	
5050 AFTER 1978 6060 6080	OPEN OPEN OPEN	2200 2300 2300	6.47 10 10	X	X		(2) (2)

(1) For spraying pressures in excess of 70 p.s.i. use smaller hydraulic motor HM1.
If directional valve lever kicks out do not tie lever in operating position. Use next size larger hydraulic motor (HM3), or adjust directional valve detents.
(2) For spraying pressures in excess of 80 p.s.i. use smaller hydraulic motor HM4.

CASE-DAVID BROWN	The property of the second state of the second	,并在"B"的"数"的"数"。	数据连接 其中,他们	经验证的	angenty out of a sufern.
995 1210	OPEN OPEN	Unknown Unknown	7.3 6.8 (1)		l ×

(1) For use on hydraulic system with optional hydraulic pump with 15.5 GPM availability use larger hydraulic motor HM1.

J.I. CASE	San Berry Land Comment of the	主要的特殊的。例	and the second	· · · · · · · · · · · · · · · · · · ·	statistic and historia
1410 2090 2290	OPEN CLOSED (LS) CLOSED (LS)	2500 2250 2250	15.5 22 22	(1) (1)	××

(1) If other implements are to be used requiring more than 4 GPM oil, use smaller hydraulic motor HM1.

HN DEERE	Street and the St	工夫代基础主持性	经基础的 4. 19. 4.10	。不要可以通過過過過過過過	erital or the production
950 1050 2040 2240 2940 3020	OPEN OPEN CLOSED CLOSED CLOSED CLOSED	2100 2100 2250 2250 2300 2000	5.8 5.8 12 . 12 18	X	X X X
4020 4040 4040 AFTER 1976 4230 4240 4320	CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED	2000 * 2000 2200 2250 2200 2000	14 20 20 (1) 18 20 (1) 14		X X X X X
4430 4430 AFTER 1976 4440 4620 4630 4630 AFTER 1976 4640	CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED CLOSED	2000 2250 2200 2000 2000 2250 2250	18 18 20 (1) 15 18 18 20 (1)		X X X X X

(1) 17 GPM after 1979.
Rated gallonage not available at rated pressure at remote outlets on all closed center systems.
Do not use metering orifices on any John Deere closed center hydraulic systems. Use Tortoise-Hare control to regulate flow if available.

DEUTZ .	Books of Alberta Market at	(1) · · · · · · · · · · · · · · · · · · ·	and the state of the state of	· · · · · · · · · · · · · · · · · · ·	The Walter Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of the Committee of	
D4006-A D4506-A D5206-A D6006-A D6206-A D6806-A	OPEN OPEN OPEN OPEN OPEN	2490 2572 2572 2490 2572 2939	Unknown (2) Unknown (2) Unknown (2) Unknown (2) 7.5 (2) 9.2 (2)			
D7206-A D8006-A D8006-A AFTER 1977 D9006-A D10006-A D10006-A AFTER 1977	OPEN OPEN OPEN OPEN OPEN OPEN	2939 2572 2572 2490 2572 2572	Unknown (2) 8.6 (2) 9.5 (2) 9.5 (2) 8.6 (2) 9.5 (2)			
D13006-A D13006-A AFTER 1977 DX90-A DX110-A DX140-A DX160-A	OPEN OPEN OPEN OPEN OPEN OPEN	2490 2490 Unknown Unknown Unknown Unknown	11.5 (2) 9.5 (2) 14.7 14.7 18.2 18.2	X X (1) (1)	××	

INTERNATIONAL HARVESTER	Specific Committee Specification	5	建筑设置 ,2019年,1	one was differen	1. 1 miles	, tr	1
HYDRO-100 600DT 756	OPEN OPEN OPEN	2000 2150 1550	13 5.8 12 (1)	x x	X	(2)	



Manufacturer and Model	Open or Maximum Closed Pressure Center Remote Type Outlets	Maximum Flow Remote	HYPRO PUMP MODEL				
		Outlets US GPM.	HM1	HM2	нмз	HM4	
(IH-continued) Agricu	Itural Tractors w	ith Front Who	eel Drive Opti	on (contin	ued)		
826	OPEN	2000	12	×			
826 HYDRO DRIVE 856	OPEN OPEN	1550 2000	12	X			1
* 886 886 AFTER NOV., 1980	OPEN CLOSED (LS)	2250 2650	13 18	X			X
966 • 986	OPEN OPEN	2000 2250	12 12	X X			
* 986 AFTER 1979 986 AFTER NOV., 1980	OPEN CLOSED (LS)	2250 2650	13	x			×
· HYDRO-186	OPEN	2250	12	×			
1026 1066	OPEN OPEN	2000 2000	12	X			
* 1086	OPEN	2450	13	X			
1086 AFTER NOV., 1980 1466	CLOSED (LS) OPEN	2650 2000	18 12	X			×
* 1486	OPEN	2450	13	X			1 ,
1486 AFTER NOV., 1980 * 1586	CLOSED (LS) OPEN	2650 2450	18 13	×			X

(1) Optional 17 GPM hydraulic pump available for this system.
(2) For tractors with optional 17 GPM hydraulic pump use HM3 where spraying pressures up to 60 p.s.i. are sufficient.

For tractors built prior to Nov., 1980, International Harvester Service Bulletin S-3436 dated 31 March 1977 advises that continuous hydraulic demand on the remote outlet valves, such as that created by hydraulic motors, can cause damage to the tractor hydraulic system. In gear driven tractors (86 Series, 2 wheel drive), the MCV pump charge circuit would not be receiving its normal flow and in Hydrostatic drive tractors, the oil cooler circuit would not be receiving its normal flow.

(LS) Load Sensing Hydraulic System. On all closed center load sensing hydraulic systems, run hydraulic motor on priority circuit.

MASSEY FERGUSON	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	经本来等于 第5分		主意被称为。并作为 光光 图	
MF205-4 MF210-4 MF220-4 MF184-4	OPEN OPEN OPEN OPEN	1700 1700 1700 1700 2417	5.0 (1) 5.4 (1) 5.4 (1) 7.4	X X X	X

(1) Remote flow available through an accessory switch valve that diverts lift system flow to remote outlets—Open Center.
On all Massey Ferguson hydraulic systems—consult tractor dealer for special plumbing instructions.
Watch hydraulic temperature closely when using continuous duty equipment such as hydraulic motors, to prevent overheating hydraulic system.

MINNEAPOLIS-MOLINE - All Moline, O	liver & White tractors re	quire auxiliary coole	rs for continuous du	ity equipment, s	such as hydi	raulic motors.	A PARTY
* G350	OPEN	2133	5.75		X		1
* G450	OPEN	2133	5.75	1	X		

* For recommendations on use of auxiliary remote valves for continuous use, consult dealer.

OLIVER - All Moline, Oliver &	White tractors require auxiliary c	coolers for continuo	ous duty equipment, e	such as hydrauli	c motors.	water to be the property
1255-1265 1355-1365 1655	OPEN OPEN OPEN	2133 2133 2050	5.75 5.75 11 (1)	×	×	
* 1755 * 1855 * 1955 2050-2150	CLOSED CLOSED CLOSED OPEN	2200 2200 2200 2050	18 18 18 11 (1)	×	X X X	

(1) When power steering is being used gallonage is decreased to approximately 8 GPM, consequently centrifugal pump output is decreased. For recommendations on use of auxiliary remote valves for continuous use, consult dealer.

WHITE - All Moline, Oliver & White trad	ctors require auxiliary co	polers for continuous	duty equipment, su	ich as hydraulic	motors.	Control State of the Control
700	OPEN	3400	5.5		X	
2-30	OPEN	2130	5.4		X	
2-45	OPEN	2275	8.5			X
2-50	OPEN	2130	6.2		X	1
2-60.	OPEN	2130	5.8		X	
2-62	OPEN	2275	8.5			X
2-70	OPEN	2050	14.6 (1)	X		
* 2-85	CLOSED	2250	20	1	X	
* 2-105	CLOSED	2250	20		X	1
2-135	CLOSED	2300	20		X	
2-155	CLOSED	2300	20		X	
2-180	CLOSED	2300	22 (2)		X	

(1) After 1979 power steering model 17.1 GPM gallonage will drop when power steering is being used, consequently centrifugal pump output will decrease.
(2) Do not exceed 6 GPM continual draw from remote outlet or 80 p.s.i. dead head pressure on pump.
For recommendations on use of auxiliary remote valves for continuous operation, consult dealer.

	Agricultural	Tractors wi	th 4 Wheel	Drive	
LLIS CHALMERS			and the second second	138 W. T. F. 8 18	
440 7580 8550 4W220 4W305 4W306	OPEN CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2000 2500 2500 2500 2500 2500	20 18 18 23 21 23		X
L CASE	the could be encounted by the	Charles of the State of	was might the entit	en een aakteria Groverini.	र प्राप्त की जन्में कुछ े पुष्ट राज्य करें
1470 2470 2670	OPEN OPEN OPEN	2000 2050 2050	16 17 17	X (1) (1)	××
2870 4490 4494 4690	OPEN CLOSED (LS) CLOSED (LS) CLOSED (LS)	2050 2250 2250 2250 2250	22 24 24 24		×
4694 4890 4894 4994	CLOSED (LS) CLOSED (LS) CLOSED (LS) CLOSED (LS)	2250 2250 2250 2250 2650	24 24 24 28		
9110 9130 9150	CLOSED CLOSED CLOSED	2500 2500 2500	27 27 27		
9170 9180 9190	CLOSED CLOSED OPEN	2500 2500 2250	30 30 25	x	



	Open or	Maximum Flow	HYPRO PUMP MODEL				
Manufacturer and Model	Closed Center Type	Pressure Remote Outlets	Remote Outlets US GPM.	нм1	HM2	нмз	HM4

Agricultural Tractors with 4 Wheel Drive (continued)

JOHN DEERE	· 大大大學學學學	Language Control	· · · · · · · · · · · · · · · · · · ·	· 医一种性性 · 医	建筑设计划以外,建筑设计设计
7020 7020 AFTER 1971 7020 AFTER 1973 7520	CLOSED CLOSED CLOSED CLOSED	2000 2000 2250 2000	15 14 18 14		X X X
7520 AFTER 1973 8430 8440 8450	CLOSED CLOSED CLOSED CLOSED	2250 2250 2250 2350	18 18(1) 18(1) 28.5		X X X
8640 8650 8850	CLOSED CLOSED CLOSED	2250 2350 2350	18(1) 28.5 30		X X

¹ Rated gallonage not available at rated pressure at remote outlets on closed center systems.

Do not use metering orifices on any closed center hydraulic systems. Use Tortoise-Hare control to regulate flow if available.

NTERNATIONAL HARVESTER	。 4、 19 13 14 16 16 16 16 16 16 16 16 16 16 16 16 16	10 7 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	建筑基本价值新作品的	Contraction of the contraction	ુર્ત્યુની સુંજરાત કોઇ છે છે છે કું જુન જાજ	1.07
4166	OPEN	2000	17	(1)	X	
4186 4366	OPEN OPEN	2000 2000	22	(1)	- Î x	
4386	OPEN	2000	16	X		
4568 4586	OPEN OPEN	1800 2000	17.5 (2)	(1)	X	
4786	OPEN	2000	17.5 (2)	(1)	X	-
6388	CLOSED (LS)	2600	18.6	X		•
6588 6788	CLOSED (LS)	2600 2600	18.6 18.6	â		

⁽¹⁾ For spraying pressures in excess of 60 p.s.i. use smaller hydraulic motor HM1.
(2) Repair pump can be 21 GPM. Consult dealer to confirm auxiliary pump hydraulic flow. Use HM3 hydraulic motor if flow is 21 GPM.

MASSEY FERGUSON .	and the second section of the section of	AND PROPERTY.	remains the second of	
* MF1500-D * MF1505 * MF1800-D	OPEN OPEN OPEN	2400 2400 2400	20 20 20	X X X
* MF1805 * MF4840 * MF4880 * MF4900	OPEN OPEN OPEN OPEN	2400 2500 2500 2500 2250	20 20 (1) 20 (1) 20 (1)	X X X

^{1) 2.5-20} GPM with flow control. Consult dealer for preferred method of operation for continuous duty equipment such as hydraulic motor. Watch hydraulic temperature closely when using continuous duty equipment, such as hydraulic motor, to prevent overheating hydraulic system.

* Auxiliary cooler is required on all 4 wheel drive Massey Ferguson tractors.

MINNEAPOLIS-MOLINE	· Section Report Section Control Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Section Secti	er transfer in your second	中央中国的Carter (1975年)	BOOK HER HER WIND WAR WAR	4 1
* A4T1400 * A4T1600	CLOSED CLOSED	2000 2000	20 20		X

^{*} For use with continuous duty equipment, such as hydraulic motor, auxiliary coolers are required.

OLIVER	water the transfer of the same	41.13 S. G. 41.10. SA	Jan . Croppe d	CONTRACTOR CONTRACTOR STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE STATEMENT OF THE S	-) • ± •
* 2655	CLOSED	2000	20		X

^{*} For use with continuous duty equipment, such as hydraulic motor, auxiliary coolers are required.

STEIGER	The same against	A-21-14 John Co. 81	341	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
* SUPER WILDCAT * WILDCAT RC210 * WILDCAT ST210 * BEARCAT * BEARCAT ST220 * BEARCAT PT225	OPEN OPEN OPEN OPEN OPEN OPEN	2000 2250 2250 2000 2250 2250	24 20 20 22 22 20 20		X X X X
BEARCAT IV CM225 BEARCAT IV KM225 COUGAR COUGAR ST250 COUGAR ST251 COUGAR ST270	OPEN OPEN OPEN OPEN OPEN OPEN	2250 2250 2000 2250 2250 2250	20 20 22 20 20 20		X X X X
* COUGAR PT270 COUGAR IV CM250 COUGAR IV CM280 COUGAR IV KM280 COUGAR IV CS280 COUGAR IV KS280	OPEN OPEN OPEN OPEN OPEN OPEN	2000 2250 2250 2250 2250 2250 2250	20 20 20 20 20 20 20		X X X X
PANTHER PTA297 PANTHER ST310 PANTHER ST320 PANTHER ST325 PANTHER III PTA325(1) PANTHER IV CM325	OPEN OPEN OPEN OPEN OPEN OPEN	2250 2250 2250 2250 2250 2250 2250	20 20 20 20 20 20 20		X X X X



	Open or Closed	Maximum Pressure	Maximum Flow Remote		HYPRO PU	HYPRO PUMP MODEL		
Manufacturer and Model	Center Type	Remote Outlets	Outlets US GPM.	HM1	HM2	НМ3	HM4	
(STEIGER-continued)	Agricultural Tra	ctors with 4	Wheel Drive (c	ontinued)				
PANTHER IV KM325	OPEN	2250	. 20		1	T X		
PANTHER IV CM360	OPEN	2250	20			l â	1	
PANTHER IV KM360	OPEN	2250	20			l â		
* PANTHER ST350	OPEN	2250	20			Î		
* PANTHER PT350	OPEN	2250	20			X		
PANTHER CP1325	CLOSED (LS)	2500	25			1 "	X	
PANTHER KP1325	CLOSED (LS)	2500	25			+	X	
PANTHER CP1360	CLOSED (LS)	2500	25				x	
PANTHER KP1360	CLOSED (LS)	2500	25				î	
PANTHER CP1400	CLOSED (LS)	2500	25				x	
PANTHER KP1400	CLOSED (LS)	2500	25				X	
* TIGER	OPEN	2000	25			X		
* TIGER ST450	OPEN	2250	25			X	-	
TIGER IV KP525	OPEN	2250	25			l x		
* PTA251 (1)	OPEN	2250	20			X	1	
* PTA270(1)	OPEN	2250	20			X	i	
* ST280(1)	OPEN	2250	20			X		
 PTA280(1) 	OPEN	2250	20	1		X		
* PTA310(1)	OPEN	2250	20			X		
PUMA 1000	CLOSED	2500	27				X	
WILDCAT 1000	CLOSED	2500	27			1	X	
COUGAR 1000	CLOSED	2500	27	1		Į.	x	
PANTHER 1000	CLOSED	2500	27	İ			Î	
LION 1000	CLOSED	2500	27	1			Ŷ	

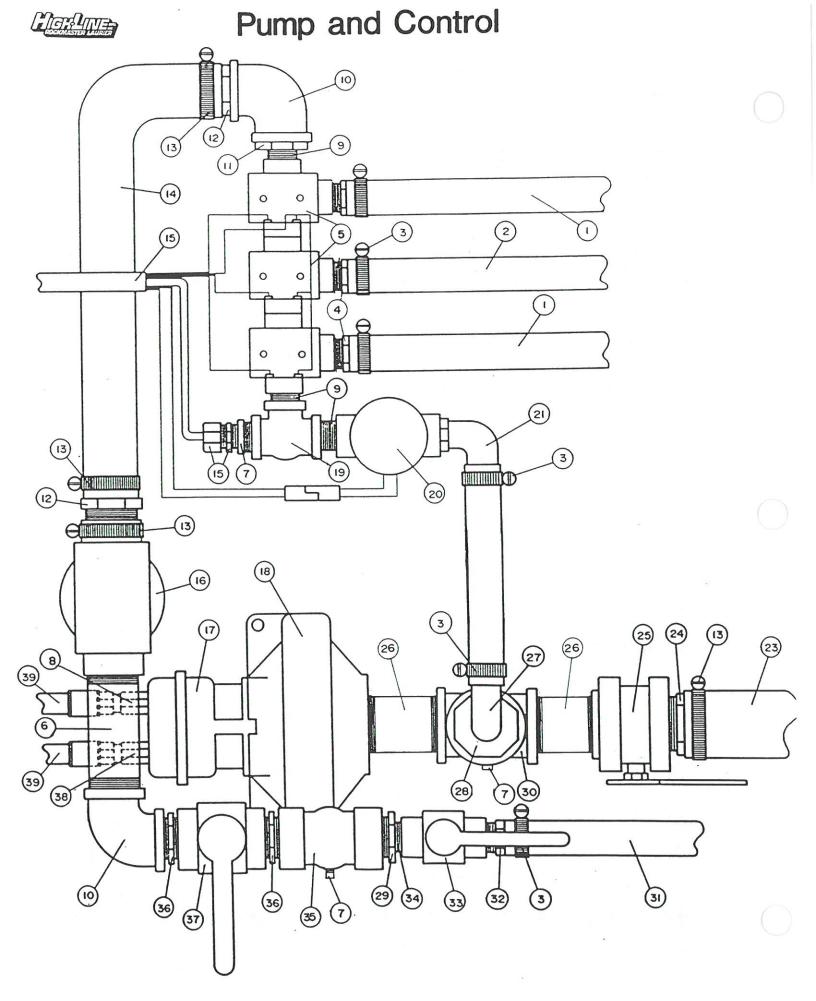
^{*} Steiger does not recommend use of continuous duty equipment without flow divider or auxiliary cooler. Coolers are available for older model tractors.

(1) Series III tractors available with flow divider kit. Standard output 9 GPM - HM4. Optional output 18 GPM - HM3.

VERSATILE	5. 美沙斯斯·克·沙·哈拉克马克斯坦	Call the Barrier	Stranger State &	- Bits - Harris - Citizen	Salar market from March	
118	OPEN	1700	12.5	X		
118 AFTER 1971	OPEN	2000	16.5	î		1
125	OPEN	1750	12.5	l x l	1	
145	OPEN	1750	12.5	î		ı
145 AFTER 1971	OPEN	2000	16.5	l	1	
150	OPEN	2500	14	î		
150 AFTER 1976	OPEN	2500	15	X		+
150 SERIES II	OPEN	2250	15	X		
256	CLOSED	2800	27.6			X
276	CLOSED	2800	27.6	1	1	X
300	OPEN	2000	16	X		- "
500	OPEN	2300	24		×	1
555	OPEN	2400	23.2		X	-
700	OPEN	2000	24	1 1	l x	1
700 SERIES II	OPEN	2300	25	1	l x	1
750 SERIES II	OPEN	2300	23.5	1 1	X	1
756	CLOSED	2400	25		_ ^	X
800	OPEN	2000	20		X	1 ^
800 SERIES II	OPEN	2300	23.5		l ŝ	1
825 SERIES II	OPEN	2300	23.5		X	+
835	OPEN	2300	23.5 (1)	1 1	l ŝ	
836	CLOSED	2400	25	1	^	l x
850	OPEN	2000	20		X	^
850 SERIES II	OPEN	2300	23.5	1	l ŝ	1
855	OPEN	2300	23.5 (1)		l ŝ	
856	CLOSED	2400	25			T X
875	OPEN	2300	23.5 (1)		l x	1 ^
876	CLOSED	2400	25	1 1	1 ^	X
895	OPEN	2400	23.6 (1)	1	l x	^
900	OPEN	2000	26	1 1	l â	
900 SERIES II	OPEN	2300	25	1 1	l â	
905	OPEN	2300	23.5		X	+
935	OPEN	2300	25 (1)	1	l â	
936	CLOSED	2400	24	1 1	1 ^	l x
945	OPEN	2250	23.6	1	×	_ ^
950	OPEN	2300	25 (1)	1 1	l ŝ	1
950 SERIES II	OPEN	2300	25		l â	
955	OPEN	2250	23.6		- x	+
956	CLOSED	2400	24	1	1 ^	x
975	OPEN	2250	23.6		×	1 ^
976	CLOSED	2400	24		^	×
1150	CLOSED (LS)	2500	27		1	Î
1156	CLOSED	2500	27	1	1	l â

⁽¹⁾ On 1975 model tractors and newer, when power steering is being used there will be a drop in hydraulic GPM, consequently centrifugal pump flow will decrease. Consult your Versatile Farm Equipment dealer for special plumbing instructions.

4-150	CLOSED			CONTRACTOR OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF	* # + + 1
	CLOSED	2250	18	X	
4-175	CLOSED	2250	20	Y	
4-180	CLOSED	2250	18	1 0	
4-210	CLOSED			_ ^	1
4-225		2250	20	X	
	CLOSED	2250	25	1	
4-270	CLOSED	2250	27		



Operating Instructions



Ensure that the hydraulic motor and pump complement your tractor unit. Failure to do so will result in damage to the tractor hydraulic system, the pump unit and/or both. Refer to the "Hydraulic Motor Driven Hypro Centrifugal Pump Selection Guide". See Page 27, to ensure of the proper choice.

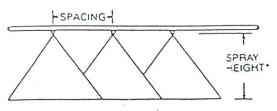
This sprayer unit is equipped with a centrifugal pump which has different operating characteristics from positive displacement pumps. This pump does not pump a fixed amount of fluid which must go to the booms or through a pass. This pump can be throttled to provide just enough flow for the booms. The regulator valve is used to fine tune the system.

How to put sprayer in operating position? For reference to valve instructions see Page 37, on opposite page.

- 1. Fill tank with about 150 gallons of water.
- 2. Ensure that the 1 1/2" ball valve is in open position (valves are open when handles are running in the same direction as pipes.)
 This allows water to enter into pump.
- 3. Open 1" ball valve by putting handle in same direction as pipe. This allows water to go to the agitator in the tank.
- 4. Close the throttle valve. This is done by placing handle in opposite direction of pipes.
- 5. Place control panel master switch to "ON" position. Also engage boom #1,#2 and #3 to "ON" position. Hold the pressure adjust switch to increase position for 5 seconds to allow regulator valve to close. (If increase position is not shown on the unit, hold it for that same amount of time).
- 6. Engage hydraulic pump drive. This is done by bringing tractor to operating speed (RPM).



Nozzle Sprayer Chart



*Adjust spray height in the field to overap approximately 30% of each edge of patters.

	STED MINIMUM RAY HEIGHT
SPRAY ANGLE	SPRAY HEIGHT 20" SPACING
80"	17-19" 10-12"

HOW TO ORDER:
SPECIFY TIP NO.
Examples:
XR 8002VS—Stainless Steel with
VisiFlo color coding

XR 8002VH—Hardened Stainless Steel with VisiFlo color coding

	TIP I		Liquid	Capacity	Capacity	G	ALLONS 20" SP	PER ACR	Ε.	G	ALLONS 30° SP	PER ACR	E
TIP COLOR	80° SERIES	110° SERIES	Pressure in PSI	1 Nozzle in GPM	1 Nozzle in ez/min.	5 MPH	6 MPH	7 MPH	8 MPH	5 MPH	6 MPH	7 MPH	8 MPH
Orange	XR8001 (100 Mesh)	XR11001 (100 Mesh)	15 20 30 40 60	.06 .07 .09 .10	8 9 11 13 15	3.6 4.2 5.1 5.9 7.3	3.0 3.5 4.3 5.0 6.1	2.6 3.0 3.7 4.2 5.2	2.3 2.6 3.2 3.7 4.6	2.4 2.8 3.4 4.0 4.9	2.0 2.3 2.9 3.3 4.0	1.7 2.0 2.5 2.8 3.5	1.5 1.8 2.1 2.5 3.0
Green	XR80015 (100 Mesh)	XR110015 (100 Mesh)	15 20 30 40 60	.09 .11 .13 .15	12 14 17 19 23	5.5 6.3 7.7 8.9 10.9	4.5 5.3 6.4 7.4 9.1	3.9 4.5 5.5 6.4 7.8	3.4 3.9 4.8 5.6 6.8	3.6 4.2 5.1 5.9 7.3	3.0 3.5 4.3 5.0 6.1	2.6 3.0 3.7 4.2 5.2	2.3 2.6 3.2 3.7 4.6
Yellow	XR8002 [50 Mesh]	XR11002 (50 Mesh)	15 20 30 40 60	.12 .14 .17 .20 .25	15 18 22 26 32	7.3 8.4 10.3 11.9 14.6	6.1 7.0 8.6 9.9 12.1	5.2 6.0 7.4 8.5 10.4	4.5 5.3 6.4 7.4 9.1	4.8 5.6 6.9 7.9 9.7	4.0 4.7 5.7 6.6 8.1	3.5 4.0 4.9 5.7 6.9	3.0 3.5 4.3 5.0 6.1
Blue	XR8003 (50 Mesh)	XR11003 (50 Mesh)	15 20 30 40 60	.18 .21 .26 .30	23 27 33 38 47	10.9 12.6 15.4 17.8 22	9.1 10.5 12.9 14.9 18.2	7.8 9.0 11.0 12.7 15.6	6.8 7.9 9.7 11.1 13.6	7.3 8.4 10.3 11.9 14.6	6.1 7.0 8.6 9.9 12.1	5.2 6.0 7.4 8.5 10.4	4.5 5.3 6.4 7.4 9.1
Red	XR8004 (50 Mesh)	XR11004 (50 Mesh)	15 20 30 40 60	.24 .28 .35 .40 .49	31 36 45 51 63	14.5 16.8 21 24 29	12.1 14.0 17.2 19.8 24	10.4 12.0 14.7 17.0 21	9.1 10.5 12.9 14.9 18.2	9.7 11.2 13.7 15.8 19.4	8.1 9.3 11.4 13.2 16.2	6.9 8.0 9.8 11.3 13.9	6.1 7.0 8.6 9.9 12.1
Brown	XR8005 (50 Mesh)	XR11005 (50 Mesh)	15 20 30 -40 60	.31 .35 .43 .50	40 45 55 64 78	18.2 21 26 30 36	15.2 17.5 21 25 30	13.0 15.0 18.4 21 26	11.4 13.1 16.1 18.6 23	12.1 14.0 17.2 19.8 24	10.1 11.7 14.3 16.5 20	8.7 10.0 12.3 14.1 17.3	7.6 8.8 10.7 12.4 15.2
Gray	XR8006 (50 Mesh)	XR11006 (50 Mesh)	15 20 30 40 60	.37 .42 .52 .60	47 54 67 77 95	22 25 31 36 44	18.2 21 26 30 36	15.6 18.0 22 25 31	13.6 15.8 19.3 22 27	14.5 16.8 21 24 29	12.1 14.0 17.2 19.8 24	10.4 12.0 14.7 17.0 21	9.1 10.5 12.9 14.9 18.2
White	XR8008 (50 Mesh	XR11008 (50 Mesh)	15 20 30 40 60	.49 .57 .69 .80	63 73 88 102 125	29 34 41 48 58	24 28 34 40 49	21 24 29 34 42	18.2 21 26 30 36	19.4 22 27 32 39	16.2 18.7 23 26 32	13.9 16.0 19.6 23 28	12.1 14.0 17.1 19.1 24

NOTE: ALL MEASUREMENT ARE IN U.S. TO CONVERT MULTIPLY BY .83



- 7. Open the throttle valve slowly and watch the pressure increase on the gauge. Once the pressure reaches the desired position, turn to sprayer nozzle chart on Page 35. Standard nozzle is 11003LP. Find desired position pressure by looking at machine operating speed. Open the throttle valve a little more if more pressure is needed.
- 8. Shut off boom #1 and watch as pressure increases. To adjust the pressure, use the pressure adjust switch in "Down" position. Lower the pressure to the desired level. If the pressure cannot be lowered sufficiently, it may be necessary to close the throttle valve slightly.
- 9. The unit is ready for field operation. The throttle valve can be left at this setting.

How to drain Sprayer System?

- 1. Remove plug out of bottom of cross. This plug should be removed until sprayer is needed again.
- Drain water out of centrifugal pump by removing drain plug on bottom of pump. This plug can be replaced when finished draining.
- Remove caps from right, left and centre booms to allow draining. These caps should be left off until sprayer is needed again.

NOTE: DRAIN ALL WATER OUT OF SYSTEM FOR WINTER MONTHS.



BOOM LENGTH CHART

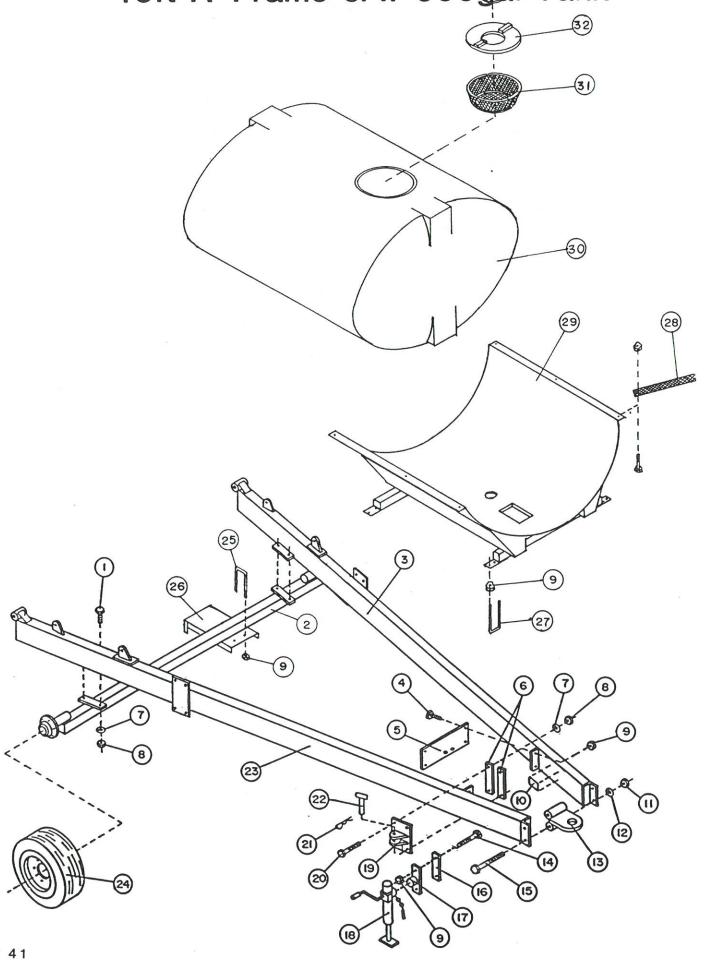
						PART	NO.
			for Fie				
11 F	t. Ce	entr	re Boom			550	30
Wing	Tube	в Вс	oom for	Field	Sprayer		
60	Ft.	-	24'3"	Boom		550	31
70	Ft.	-	29'3"	Boom		. 550	32
80	Ft.	-	34'3"	Boom		. 550	33
90	Ft.	-	39'3"	Boom		. 550	34
92	Ft.	-	40'11"	Boom		. 550	35
96	Ft.	_	42'7"	Boom		. 550	36
100	r+	_	4313"	Room		. 550	37



Parts Catalogue

PAG
15 Ft. A-Frame c/w 500 Gallon Tank 41
20 Ft. A-Frame c/w 833 Gallon Tank (HB)
20 Ft. A-Frame c/w 833 Gallon Tank (HPB) 45
611 Hub and Spindle 47
Centre Tube 49
Two Piece AUTO FOLD (HB)
Two Piece AUTO FOLD (HPB)53
Wing Tubes 55
Boom Wheel 57
Boom Assembly 59
Boom Bracket & Quick Coupler 61
Agitator, Anti-Vortex & Control Monitor 63
Pump and Control 65
Pump, Pump Control Plate and Guard 67
15 Ft. A-Frame Hydraulics 69
20 Ft. A-Frame Hydraulics 70
Nozzles
3 1/2" x 16" Cylinder 75
Centre & Wing Booms

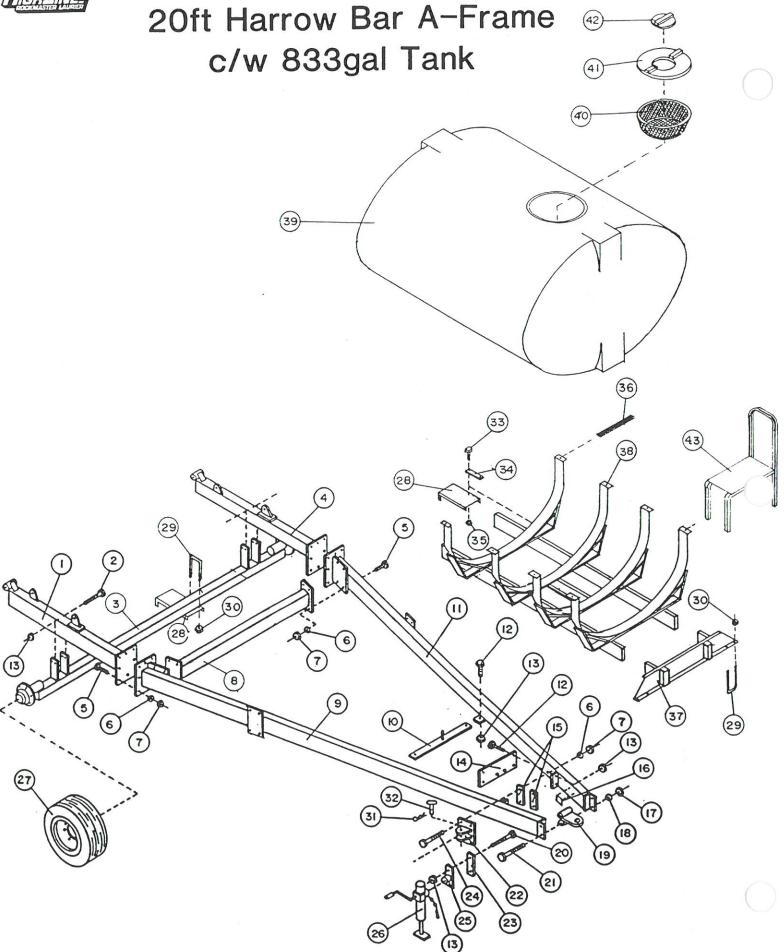
15ft A-Frame c/w 500gal Tank





ITEM	PART NUMBER	DESCRIPTION	Nº
1	B5C1032P	Bolt 5/8" x 2"	4
2	20001	15' A-Frame Axle	1
3	20002	15' Left A-Frame Hitch	1
4	B5C0824P	Bolt 1/2" x 1 1/2"	4
5	20004	Cross Plate Standard	1
	20112	Cross Plate Split Auto Fold	1
6	20005	Cable Bracket PLates	4
7	W10P	Lockwasher 5/8"	12 12
8	N5C10P	Nut 5/8"	4
9	LN5C08P 92003	Locknut 1/2" Serial Number Plate	1
	N5C16P	Nut 1"	2
12	W16P	Lockwasher 1"	2
13	10022	Bolt on Draw Hitch	1
	B5C0896P	Bolt 1/2" x 6" (optional)	2
15	B5C16120P	Bolt 1" x 7 1/2"	2
16	20045	Backing Plate (optional)	1
17	20046	Jack Plate c/w Stub (optional)	1
18	92002	Sidewind Jack	1
19	20006	Bolt on Cable Bracket	2
	B5C1080P	Bolt 5/8" x 5"	8
N. 100 (100 (100))	HP52	Hair Pin Clip 3 1/4"	2 2
100000000000000000000000000000000000000	10060	Cable Bracket Pin	1
23	20003 91025	15' Right A-Frame Hitch 9.5L x 6 ply c/w 6" Wheel Rim	*
24	91025	9.5L x 6 ply c/w 8" Wheel Rim	*
	91027	11L x 6 ply c/w 8" Wheel Rim	*
25	UB075060	U-Bolt 7/16" x 3 1/8" x 3 3/4"	2
26	50052	Quick Attach Coupler Plate	1
27	UB0848112	U-Bolt 1/2" x 3" x 7"	4
28	93005	Tank Webbing Support Kit	1
29	50001	500 Gallon Tank Saddle	1
30	93000	500 Gallon Tank	1
31	93003	Tank Lid Strainer	1 .
32	93002	Tank Lid	1
33	93004	Centre Cover	1
		*As Required	
			-
1			750.2







ITEM	PART NUMBER	DESCRIPTION	N₅
1	20010	20' Right A-Frame Hitch Tube	1
2	B5C0872P	Bolt 1/2" x 4 1/2"	4
3	20008	20' A-Frame Axle	1
4	20009	20' Left A-Frame Hitch Tube	1
5.	B5C1028P	Bolt 5/8" x 1 3/4"	20
	W10P	Lockwasher 5/8"	28
7	N5C10P	Nut 5/8"	28
8	20011	A-Frame Cross Member	1
9	20013	20' Left A-Frame Hitch	1
10	20014	A-Frame Cross Angle	1
11	20012	20' Left A-Frame Hitch	1
12	B5C0824P	Bolt 1/2" x 1 1/2"	6
13	LN5C08P	Locknut 1/2"	14
14	20004	Cross Plate Standard	1
	20112	Cross Plate Split Auto Fold	1
15	20005	Cable Bracket Plate	2
16	92003	Serial Number Plate	1
17	N5C16P	Nut 1"	2
	W16P	Lockwasher 1"	2
N=946 . 3	10022	Bolt on Draw Hitch	1
	B5C0896P	Bolt 1/2" x 6" (optional)	2
	B5C16120P	Bolt 1" x 7 1/2"	2
	20006	Bolt on Cable Bracket	2
	20045	Backing Plate (optional)	1
	B5C1080P	Bolt 5/8" x 5"	8
200 100	20046	Jack Bracket c/w Stub (optional)	1
	92002	Sidewind Jack (optional)	2
	91025	9.5L x 6 ply c/w 6" Wheel Rim	*
	91026	9.5L x 6 ply c/w 8" Wheel Rim	*
	91027	11L x 8 ply c/w 8" Wheel Rim	*
	50052	Quick Attach Coupler Plate	1
		U-bolt 1/2" x 3 1/8" x 3 3/4"	2
	LN5C08P	Locknut 1/2"	4
	HP52	Hair Pin Clip 3 1/4"	2
	10060	Cable Bracket Pin	2
	B5C0748P	7/16" x 3" bolt	4
500.55	55043	Hose Connector Bracket Plate	2
100000000000000000000000000000000000000	LN5C07P	Locknut 7/16"	4
	93005	Tank Webbing Support Kit	1
	50006	Saddle Support 20 ft. A-Frame	1
	50002	833 Gallon Tank Saddle	1
	93001	833 Gallon Tank	1
	93003	Tank Lid Strainer	1
53 13 13 13 13 13 13 13 13 13 13 13 13 13	93002	Tank Lid	1
	93004	Centre Cover	1
43	50057	Step Support for Tank *As Required	1
		no negation	U T



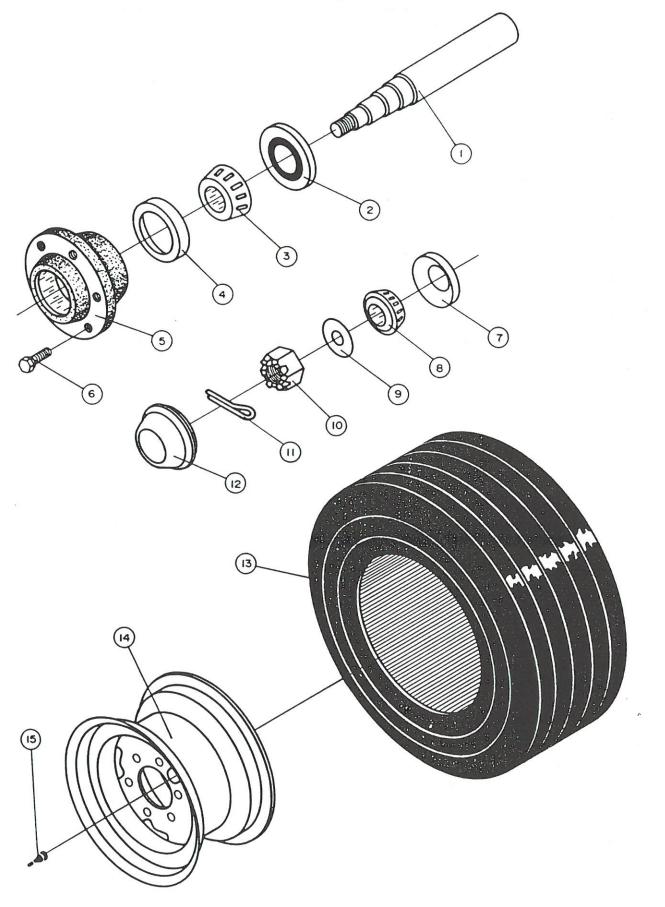
20ft Harrow Packer A-Frame c/w 833gal Tank (5) (16)



ITEM	PART NUMBER	DESCRIPTION	Nº
1	91027	11L x 6 ply c/w 8" Wheel Rim	4
2	N5C10P	Nut 5/8"	32
3	W10P	Lockwasher 5/8"	32
4	10017	Oscillating Axle c/w 611 Hub	2
5	LN5C08P	Locknut 1/2"	24
6	10016	Oscillating Axle Pocket	4
7	91700	Grease Nipple 1/8" NPT Straight	4
8	10089	Right A-Frame Hitch Tube	1 8
10	UB0850146 B5C1028P	U-bolt 1/2" x 3 1/8" x 9 1/8" Bolt 5/8" x 1 3/4"	8
	10092	Cross Member	1
12	10088	Left A-Frame Hitch Rear	1
	10090	Left A-Frame Hitch	1
	B5C0824P	Bolt 1/2" x 1 1/2"	8
	10093	Cross Angle	1
	10123	Cross Plate (no auto fold)	1
	92003	Serial Number Plate	1
	N5C16P	Nut 1"	2
	W16P	Lockwasher 1"	2
	10022	Bolt on Draw Hitch	1
	10143	Tension Spring Plate	2
	B5C16120P 10069	Bolt 1" x 7 1/2"	4
	10069	Cable Bracket Plates (no auto fold) Bolt on Cable Bracket (no auto fold)	2
	B5C1080P	Bolt 5/8" x 5" (no auto fold)	8
	HP52	Hair Pin Clip 3 1/4" (no auto fold)	2
	10060	Cable Bracket Pin (no auto fold)	2
	10091	Right A-Frame Hitch	1
	B8C1028P	Bolt 5/8" x 1 3/4" Grade 8	16
	50055	HPB 833 Gal. Tank Front Cross Member	1
	50054	HPB Guard & Step Support for Tank	1
18870	50002	833 Gallon Tank Saddle	1
	50052	Quick Attach Coupler Plate	1
	55043	Hose Connector Bracket Plate	2
	LN5C07P	Locknut 7/16"	4
	B5C0748P 93001	7/16" x 3" Bolt 833 Gallon Tank	1
	93001	Tank Lid Strainer	1
	93003	Tank Lid Strainer	1
	93004	Centre Cover	1
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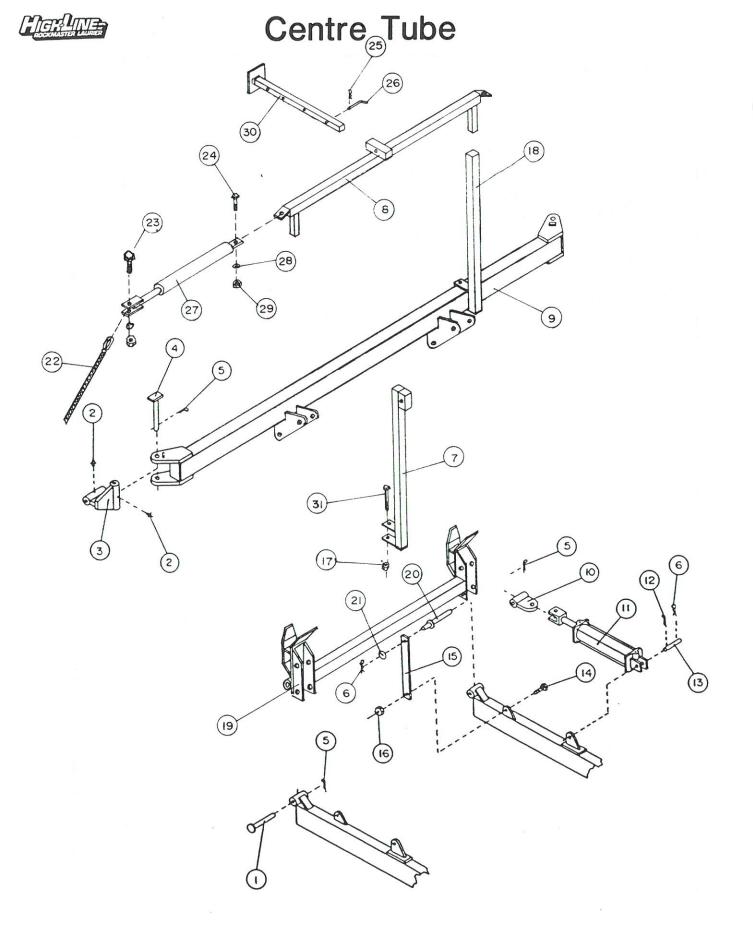


611 Hub & Spindle





ITEM	PART NUMBER	DESCRIPTION	N₅
1	91250 91252	611 Spindle Main Axle & End Wheel 2" x 10"	1
	91253	611 Spindle Trans. Wheel 2" x 14" 611 Spindle Trans. Wheel Parallel 2" x 19"	1 1
2	91090	611 Seal	1
3 4	91170 91150	611 Inner Cone LM29749 611 Inner Race LM29710	1 1
5	91070	611 Hub	1
6 7	91060	Wheel Bolt 1/2"	6
8	91130 91110	611 Outer Race LM67010 611 Outer Cone LM67048	1
9	91190	611 1" Washer	1
10	91210 CPO340	611 1" Castlelated Nut	1
	91230	Cotter Pin 3/16" x 1 1/2" 611 Dustcap	1
13	91000	9.5L x 6 ply Tire	1
14	91001 91050	11L x 6 ply Tire (optional)	1
14	91050	15" x 8" x 6" Wheel Rim (optional) 15" x 6" x 6" Wheel Rim	1
15	92005	Valve Stem	1
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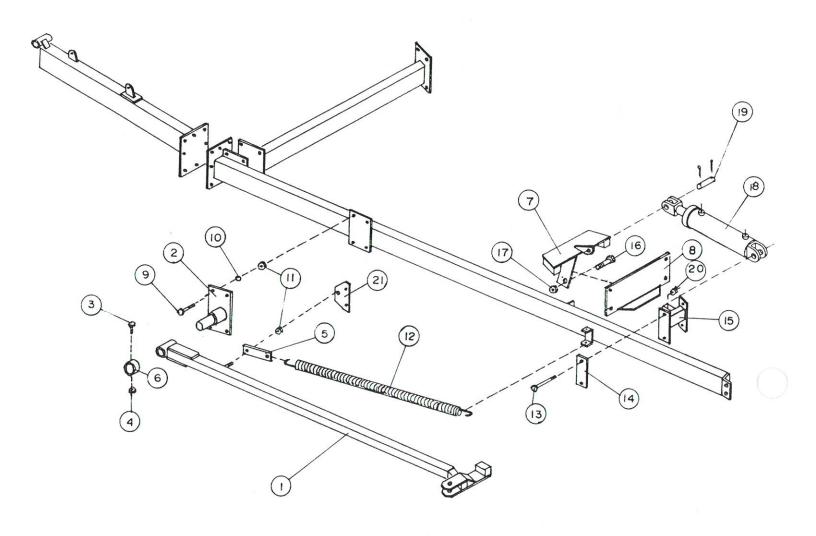




ITEM	PART NUMBER	DESCRIPTION	N ₅
1	10015	Pin Hitch 1 1/4" x 7 1/2"	2
2	91700	Grease Nipple 1/8" Straight	4
3	55018	Right Knuckle	1
	55019	Left Knuckle	1
4	20020	Pin Knuckle 1 1/4" x 8 3/4"	2
5	CPO440	Cotter Pin 1/4" x 2 1/2"	2
	HP52	Hair Pin Clip 3 1/4"	6
7	55007	Left Sprayer Support Arm	1
8	55005	Sprayer Rear Support	1
	55049	Sprayer Centre Tube	1
	20084	Cylinder Swivel	2
	90103	Cylinder 3 1/2" x 16"	8
	CPO324	Cotter Pin 3/16" x 1 1/2"	4
	91603	Cylinder Pin 1" x 3 3/4"	4
	B8C1232P	Bolt 3/4" x 2" Gr.8	2
	20024	Cylinder Lock Locknut 3/4"	2
	LN5C12P LN5C08P	Locknut 1/2"	2 2
	55006	Right Sprayer Support Arm	1
	55008	Quick Attachment H.B.	1
	20023	Pin Cylinder Lock 1" x 7"	2
	FW16P	Flatwasher 1"	2
	91826	23'4" Cable 60 ft. & 70 ft.	*
1777-0-201-0-0	91827	28'4" Cable 80 ft. & 90 ft.	*
	91807	31' Cable 100 ft.	*
	B5C1248P	Bolt 3/4" x 3"	2
in i	B5C1232P	Bolt 3/4" x 2"	2
	HP24	Hair Pin Clip 1 1/2"	2
26	20049	Pin Jack	1
	55020	Sprayer Cable Tension	2
	W12P	Lockwasher 3/4"	4
	LN5C12P	Locknut 3/4"	4
	55013	Adjustable Jack	1
31	B5C08120P	Bolt 1/2" x 7 1/2"	2
		31.0 Dec 100.0	
		*As Required	
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Two Peice Auto Fold

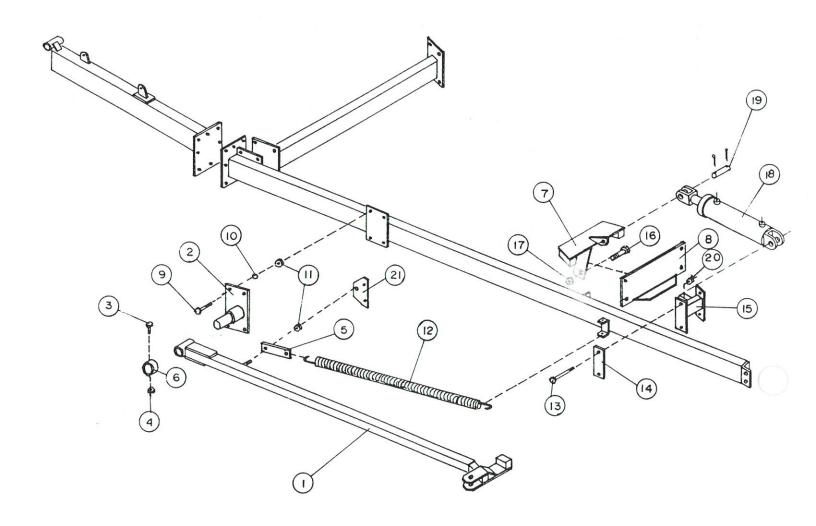




ITEM	PART NUMBER	DESCRIPTION	Nº
1	20124	Right Arm Auto Fold	1
	20123	Left Arm Auto Fold	1
2	20106	Auto Fold A-Frame Bracket Right Auto Fold A-Frame Bracket Left	1
3	B5C0428P	Bolt 1/4" x 1 3/4"	
4	LN5C04P	Locknut 1/4"	2 2 2
5	20108	Backing Plate	
6	20110	Shaft Collar	2
7	30042	HP & PB Auto Fold Locking Bracket	1
8	20125	Cross Plate	1
1000	B5C1028P W10P	Bolt 5/8" x 1 3/4" Lockwasher 5/8"	8
	N5C10P	Nut 5/8"	8
The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon	91400	Auto Fold Spring	*
	B5C0872P	1/2" x 4 1/2" Bolt	4
14	20045	H.B. Jack Backing Plate	2
	30043	HB & PB Auto Fold Hyd. Cylinder Lug	1
	B5C1232P	Bolt 3/4" x 2"	1
	N5C12P	Nut 3/4"	1
	90104 91603	2" x 8" Cylinder Pin Cylinder 1" x 3 3/4"	1 2
	LN5C08P	Locknut 1/2"	4
	20215	Auto Fold Split Wing Spring Bracket	2
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Two Peice Auto Fold (Harrow Packer Bar)

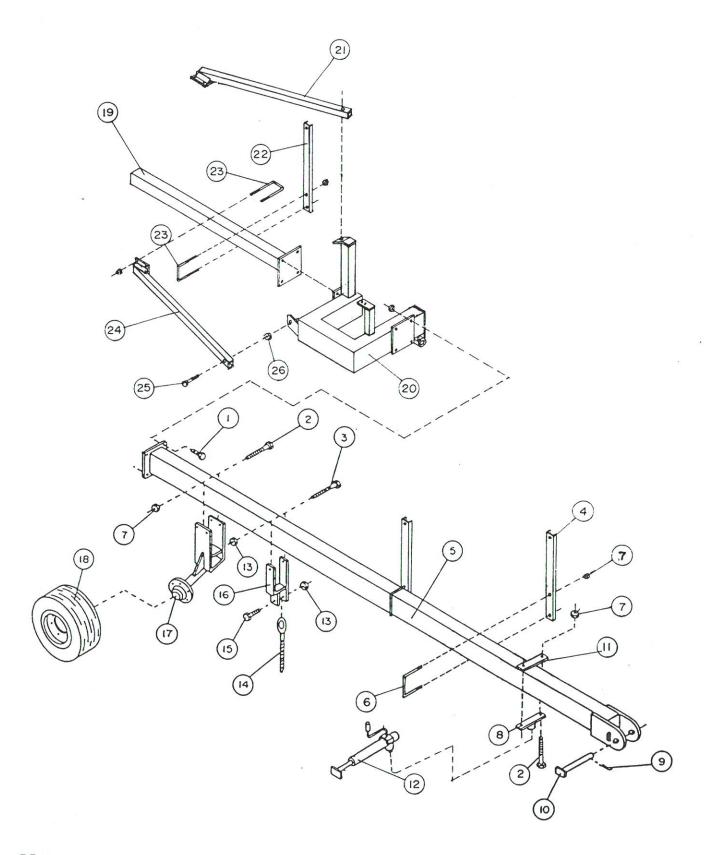




ITEM	PART NUMBER	DESCRIPTION	N₅
1	20124	Auto Fold Right Arm	1
l	20123	Auto Fold Left Arm	1
2	10158	Auto Fold HPB A-Frame Bracket Right	1
2	10157	Auto Fold HPB A-Frame Bracket Left	1 2
3	B5C0428P LN5C04P	Bolt 1/4" x 1 3/4" Locknut 1/4"	2
5	20108	Backing Plate	2
6	20110	Shaft Collar	2
7	20156	HPB Auto Fold Lock	1
8	10142	HPB Auto Fold Cross Plate	1
9	B5C1028P	Bolt 5/8" x 1 3/4"	12
10	W10P	Lockwasher 5/8"	8
11	N5C10P	Nuts 5/8"	8
	91400	Auto Fold Spring	2
	B5C0872P	Bolt 1/2" x 4 1/2"	4 2
	10155 10159	Auto Fold Cylinder Backing Plate Hydraulic Cylinder Plate (HPB)	1
	B5C1232P	Bolt 3/4" x 2"	1
December 1	N5C12P	Nut 3/4"	1
E 5554 15	90104	2" x 8" Cylinder	1
	91603	Pin Cylinder 1" x 3 3/4"	2
20	LN5C08P	Locknut 1/2"	4



Wing Tube

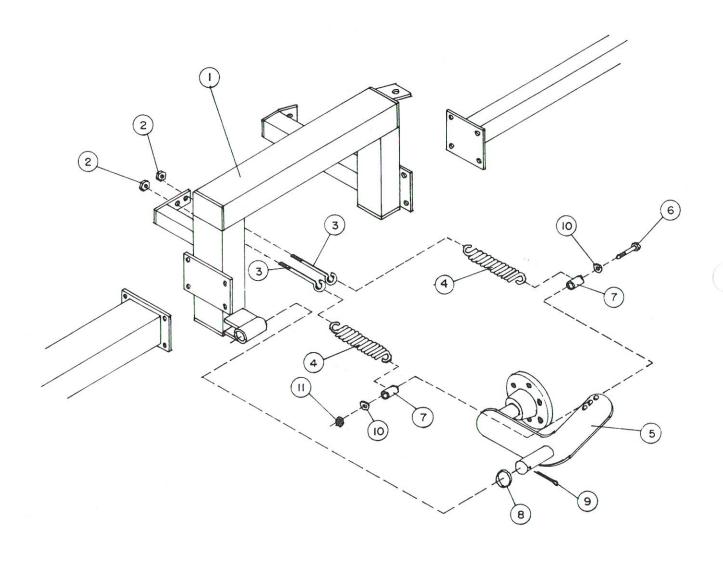




ITEM	PART NUMBER	DESCRIPTION	N°
1	B5C0824P	Bolt 1/2" x 1 1/2"	8
2	B5C0896P	Bolt 1/2" x 6"	4
3	B5C12104P	Bolt 3/4" x 6 1/2"	2
4	55021	Sprayer Long Boom	*
5	55009	18' 2 1/2" Wing Tube for 60 ft.	2
	55010	23' 2 1/2" Wing Tube for 70 ft.	2
	55011	28' 2 1/2" Wing Tube for 80 ft.	2
	55012	30' 2 1/2" Wing Tube for 92 ft. or 96 ft.	2
6	UBO69684P	U-Bolt 3/8" x 6" x 5 1/4"	*
7	LN5C08P	Locknut 1/2"	*
8	20046	Jack Plate c/w Stub (optional)	2
9	CPO440	Cotter Pin 1 /4" x 2 1/2"	2
10	20051	Pin Knuckle 1 1/4" x 7 1/4"	2
11	20045	Backing Plate	2
12	92022	Stabilizer Jack (optional)	2
a c	LN5C08P	Locknut 1/2"	*
14	91826	23' 4" Cable 50 ft. & 60 ft.	2
	91827	28' 4" Cable 80 ft. & 90 ft.	2
1.5	91807	31' Cable 100 ft.	2
100000000000000000000000000000000000000	B5C1232P	Bolt 3/4" x 2"	2
	55048	Spray Kit Cable Bracket	1
17	55041	Field Sprayer Left Transport Wheel	
1.0	55042	Field Sprayer Right Transport Wheel	1
18	91025 91026	9.5L x 6 ply c/w 6" Wheel Rim	*
	91026	9.5L x 6 ply c/w 8" Wheel Rim	*
	55014	11L x 6 ply c/w 8" Wheel Rim 4'6" Wing Tube Extention for 80 ft.	2
19	55028	6'6" Wing Tube Extention for 90 ft.	2
	55015	8'6" Wing Tube Extention for ft.	2
	55016	10'6" Wing Tube Extention for ft.	2
	50029	12'6" Wing Tube Extention for ft.	2 2
4	55003	Right Boom Wheel Extention	1
	55004	Left Boom Wheel Extention	1
	55045	Sprayer Short Boom Extention Brace	2
	55025	Sprayer Short Boom Arm	*
	UB064856P	U-Bolt 3/4" x 3" x 3 12/"	*
	55026	Sprayer Short Boom Extention Brace	2
	B5C0744P	Bolt 7/8" x 2 3/4"	4
26	LN05C07P	Locknut 7/16"	4
		*As Required	



Boom Wheel

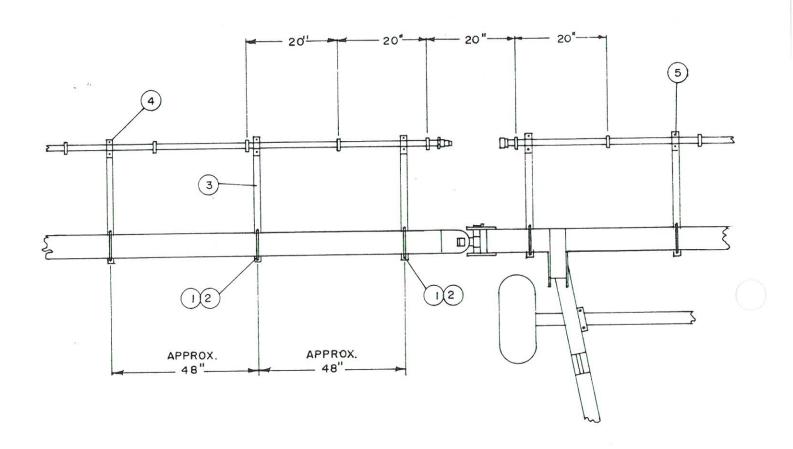




ITEM	PART NUMBER	DESCRIPTION	N°
1	55003	Right Boom Wheel	1
	55004	Left Boom Wheel	1
3	LN5C07P EBO788P	Locknut 7/16"	4
3	FW07P	Eye Bolt 7/16" x 5 1/2" Flatwasher 7/16"	4
4	91406	Mulcher Tension Spring	4 4
5	55023	Right Floating Wheel Axle	1
	55024	Left Floating Wheel Axle	1 2
<u>6</u> 7	B5C0856P 55026	Bolt 1/2" x 3 1/2" Spacer (pipe)	2
8	55027	Machine Washer	4 6
9	CP0440	Cotter Pin 1/4" x 2 1/2"	2
	FW08P	Flatwasher 1/2"	4
11	N5C08P	Nut 1/2"	2
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Boom Assembly

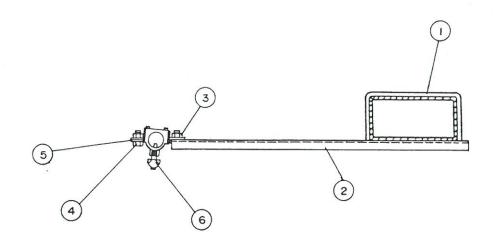


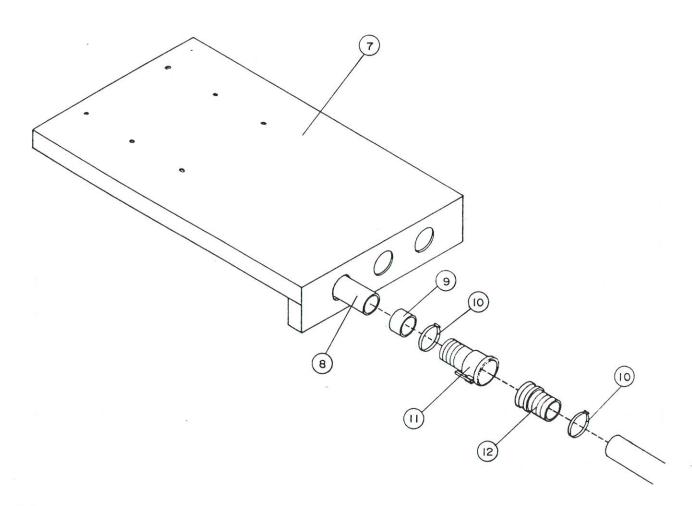


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	PART NUMBER		N₅
1 2	UB069684P LN5C06P	U-Bolt 3/8" x 6" x 5 1/4" Locknut 3/8"	*
2 3 4 5	55021	Sprayer Long Arm	*
4	50013	Boom Clamp	*
3	B5C0616P	Bolt 3/8" x 1"	*
		*As Required	
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Boom Bracket & Quick Coupler



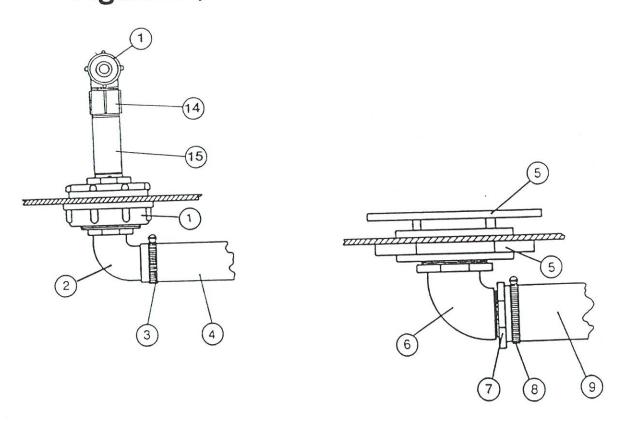


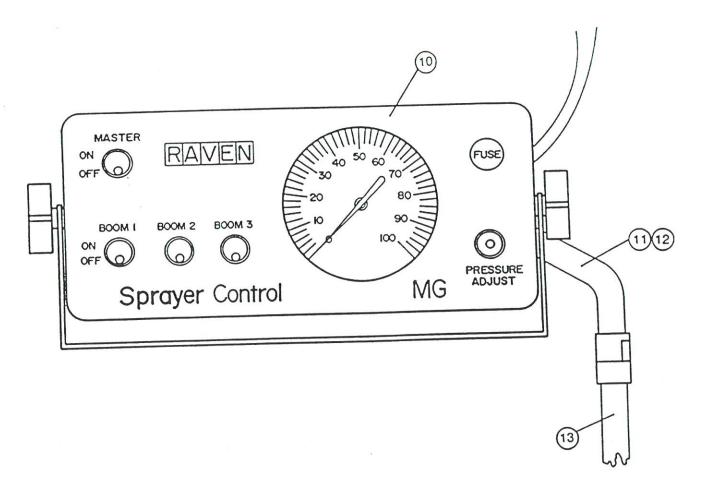


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	PART NUMBER		N₅
1 2	UB069684P 55021	U-Bolt 3/8" x 6" x 5 1/4" Sprayer Long Arm	*
3	LN5C06P	Locknut 3/8"	*
4 5	B5C0616P	Bolt 3/8" x 1"	*
6	50013 93027	Boom Clamp Spray Nozzle Complete Items	*
7	50052	14 gage Ouick Coupler Plate	1
8 9	50037 50053	1" Hose x 180" Right & Left Boom 1" Hose x 1" Spacer	2 3
10	93029	Gear Clamp	6
11 12	93075 93076	1" Quick Coupler Female	3
12	93076	1" Quick Coupler Male	3
		*As Required	



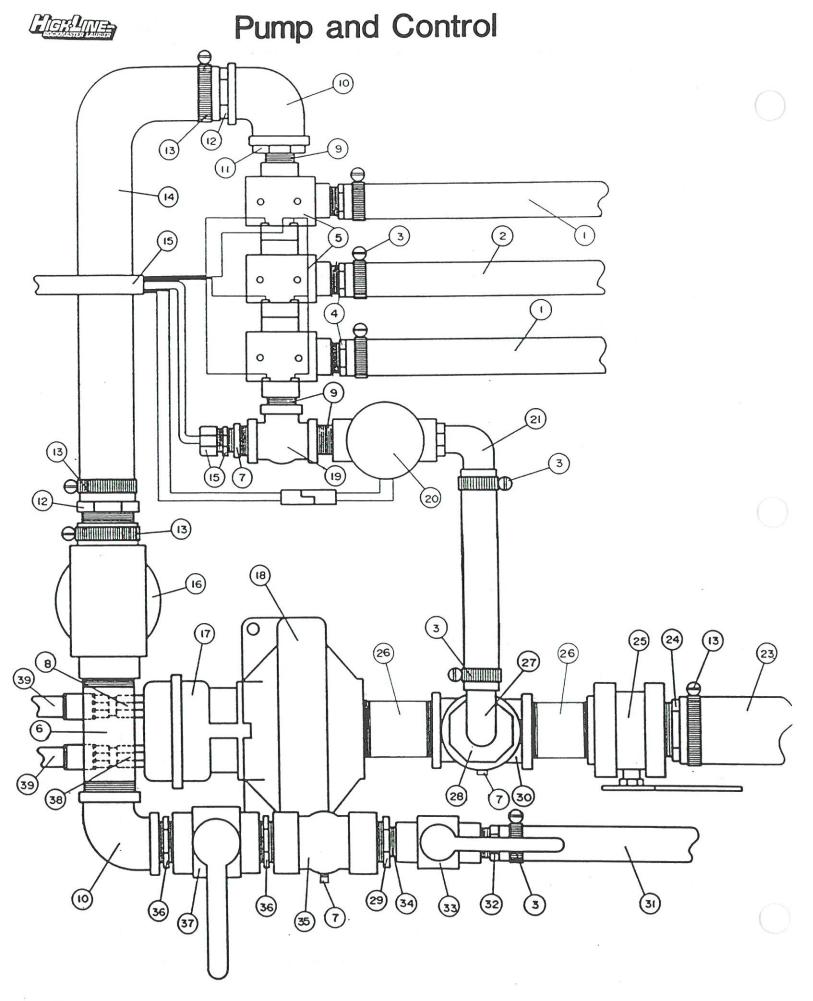
Agitator, Anti-Vortex & Control Monitor







ITEM	PART NUMBER	DESCRIPTION	No
1	93064	Agitator	1
2	93052	90° Elbow 1" MPT, 1" Hose Barb	1
3	93029	1" Gear Clamp HS16	1 1
4	50047 50048	1" Hose x 44" Agitator 1" Hose x 84" Agitator	1
	50048	1" Hose x 101" Agitator	1
5	93065	Anti-Vortex	1
6	93066	90° Elbow 1 1/2" MPT, 1 1/2" FPT	1
7	93049	1 1/2" Hose Barb, 1 1/2" MPT	1
8	93039	1 1/2" Gear Clamp HS24	1
9	50044	1 1/2" Hose x 16" Anti-Vortex	1
<u> </u>	50045 50046	1 1/2" Hose x 66" Anti-Vortex 1 1/2" Hose x 87" Anti-Vortex	1
10	93067	Sprayer Control Monitor	1
11	93068	Sprayer Control Monitor Harness	1
12	93069	Sprayer Control Monitor Harness Extention	1
13	93040	Solenoid Harness	1
14	93072	Coupler 3/4" MPT	1
15	93071	Nipple 3/4" MPT x 6"	1
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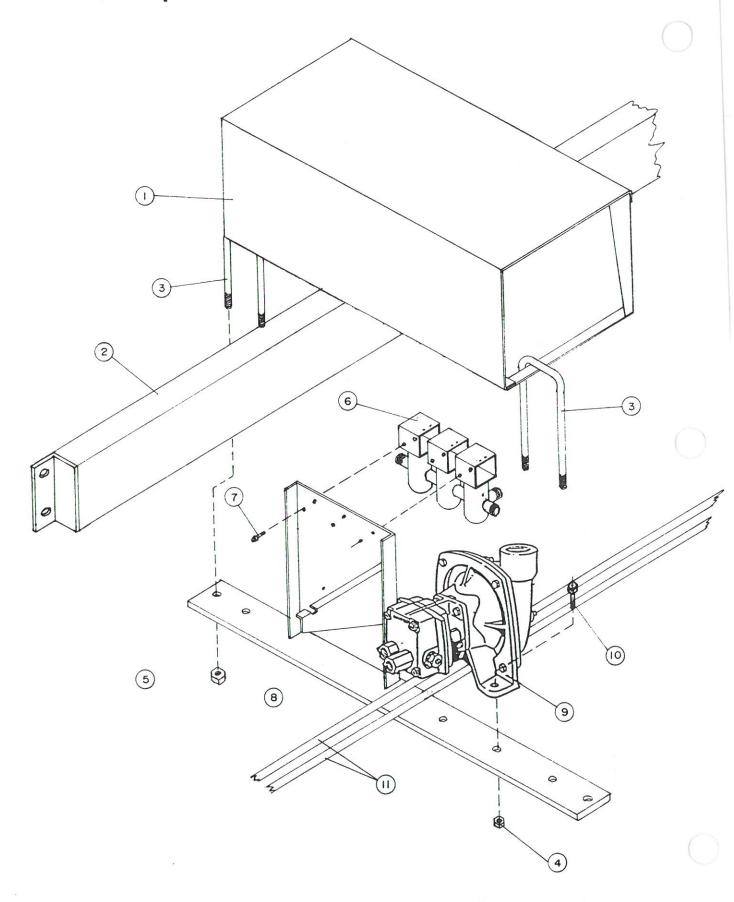




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1	50037		N₅
	50037	1" Hose x 180" Right & Left Boom	2
	50039	1" Hose x 216" Right & Left Boom	2
2	50040	1" Hose x 252" Right & Left Boom 1" Hose x 52" Centre Boom	2
	50041	1" Hose x 52" Centre Boom	1
3	93029	1" Hose x 108" Centre Boom 1" Gear Clamp	1
4	93085	1" Hose Barb, 1/2" MPT	6
5	93031	Solenoids	3
6	93062	Nipple 1 1/4" MPT x 4"	3
7	93095	1/2" Nylon PLug	1
8	93063	Metering Orifice	3
9	93035	Nipple 3/4" MPT	1
10	93036	90° Elbow 1 1/4" FPT	3 2
11	93037	Reduscer Bushing 1 1/4" MPT 2/4" PPT	
12	93038	1 - 1/4 nose Barb. 1/4" Mpm	1 2
13	93039	1 1/2" Gear Clamp	4
	50042	1 1/4" Hose x 15" Filtor	1
	93040	Solenoid Harness c/w Nut & Nipple	1
	93041 93042	TITLEI	1
1000000	93042	Hydraulic Motor c/w Pump 9303C-HM1	1
	93043	I TYULUULLC MOTOR C/W Pump 0303C IIM3	1
	93044	INVITABLE MOTOR C/W Plimp 9303C UM2	1
	93046	Centifical Pump	1
	93047	Tee 3/4" FPT	1
	93048	Regulator Valve	1
	50043	90° Elbow 3/4" MPT, 1" Hose Barb	1
	50044	1" Hose x 3 1/2" Regulator Valve 1 1/2" Hose x 32" Anti-Vortex	1
	50045	1 1/2" Hose x 66" Anti-Vortex	1
	50046	1 1/2" Hose x 87" Anti-Vortex	1
	93049	1 1/2" Hose Barb, 1 1/2" MPT	1
	93050	1 1/2" Ball Valve (Anti-Vortex)	1
	93051	NIDDIE I I//" MPT	1
	3052	90° Elbow 1 1/4" MPT 1" Hose Park	2
	3053	Reducer Bushing 1 1/2" MpT 1 1/4" PPT	1
		Reducer Bushing 1/4" Mpm 1" Epm	1
		1 1/2 100 C/W TWO 1 /7" Cido Danta	1
	10047	I HOSE X 42" Agitator	1
	0040	I" Hose x 84" Agitator	1
	0049	I" Hose x 101" Agitator	1
	3012	I" Hose Barb, 1" MpT	1
		1" Hose Valve	1
consumity 1888		Nipple 1 1/4" MPT	1
10 (Annual)		Tee 1 1/4" MPT	1
		Nipple 1 1/4" MPT	3
2000		1 1/4" Ball Valve (Throttle)	1
		Hyd. Motor Port Adaptor c/w Check Valve	1
		1 1/2" Hose 1/2" M - 1/2" M x 96"	2
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Pump & Pump Guard Assembly

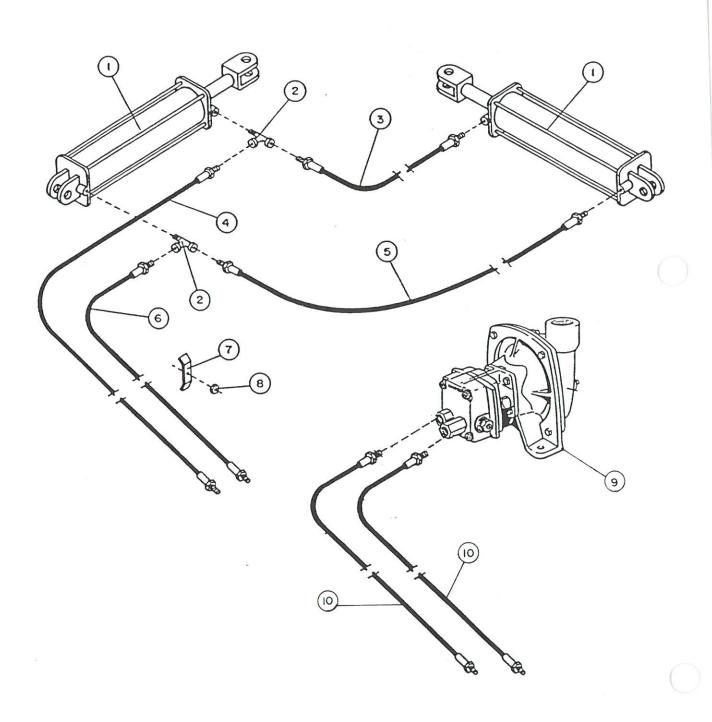




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ITEM	PART NUMBER	DESCRIPTION	Nο
1	50004	Pump Guard	_
2		Right A-Frame Hitch	1
3 4	UB0850146 LN5C06P	U-bolt 1/2" x 3 1/8" x 9"	1
5	LN5C08P	Locknut 3/8"	2
6	93031	Locknut 1/2" Solenoids	4
7	B5C0412P	Bolt 1/4" x 3/4"	3
8	50003	Pump and Control Plate	6
9	93042	Hydraulic Motor C/W Pump 9303C UM1	1
	93043 93044	Try draditic Motor C/W Plimp 9303C HM2	1
	B5C0624P	11VUI du 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	90400	Bolt 3/8" x 1 1/2" 1/2" Hyd. Line x 132"(only for 20'A-Frame)	1 2
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	1	*As Required	
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15ft A-Frame Hydraulic

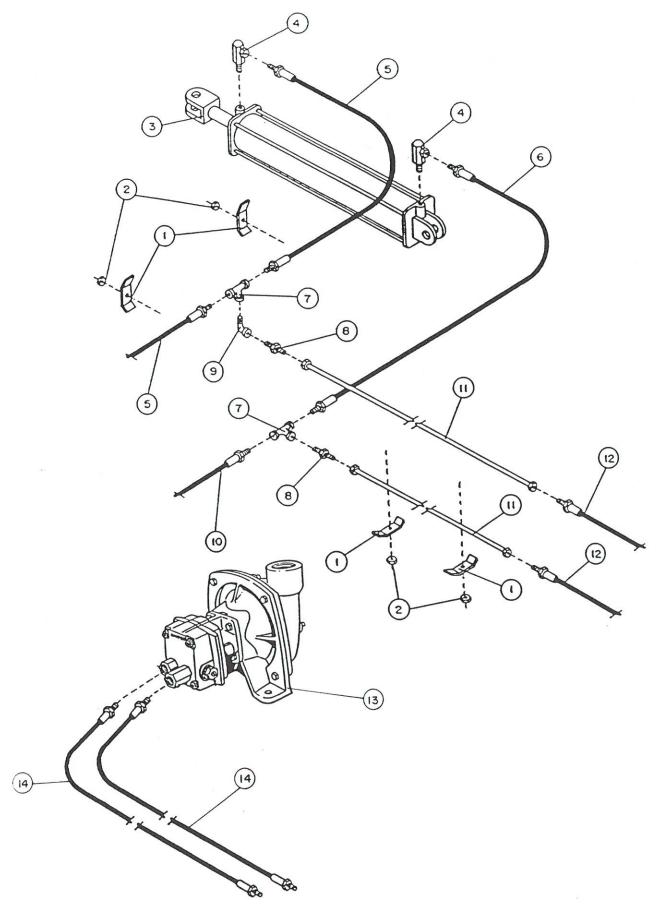




ITEM	PART NUMBER	DESCRIPTION	Nº
1 2 3 4 5 6 7 8 9	90103 90601 90206 90208 90205 90207 10034 LN5C07P 93042 93043 93044 90218	Cylinder 3 1/2" x 16" 1/2" Street Tee M-F-F 1/2" Hose 1/2" MB x 1/2" MC x 60" 1/2" Hose 1/2" MB x 1/2" MB x 204" 1/2" Hose 1/2" MB x 1/2" MC x 51" 1/2" Hose 1/2" MB x 1/2" MB x 184" Hose Clamp Locknut 7/16" Hydraulic Motor c/w Pump 9303C-HM1 Hydraulic Motor c/w Pump 9303C-HM2 Hydraulic Motor c/w Pump 9303C-HM3 1/2" Hose 1/2" M - 1/2" M x 96"	2 2 1 1 1 1 1 1 1 1 2
		*As Required	



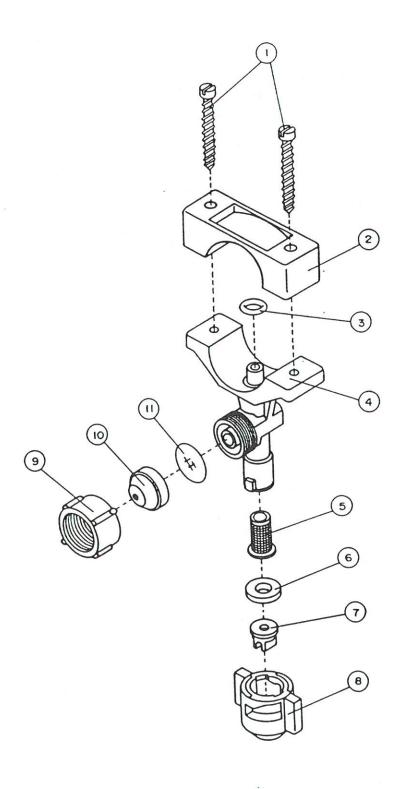
20ft A-Frame Hydraulic







Nozzles

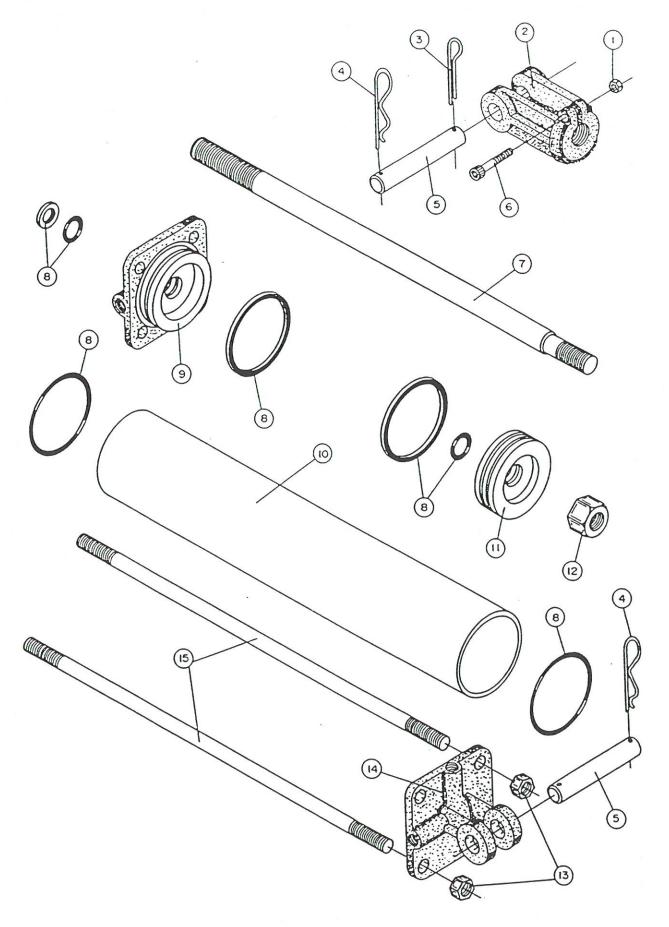




ITEM	PART NUMBER	DESCRIPTION	A10
1 2 3 4	93015 93016 93017 93018	Screws Upper Clamp O-Ring Main Body	2 1 1
6 7 8 9	93019 93020 93021 93022 93023 93024 93025	Tee Jet Strainer Seat Washer Sprayer Tip (11003LP) Cap (yellow) Other Color Caps Available Retainer End Cap	1 1 1 1 1
12	93025 93026 93027 93028	Diaphragm Split Wing Nozzle Body Sprayer Nozzle Complete Items #1 - #11 Split Wing Nozzles Complete Items #5 - #12 *As Required	1 1 * *
	8		



3 1/2" X16" Cylinder

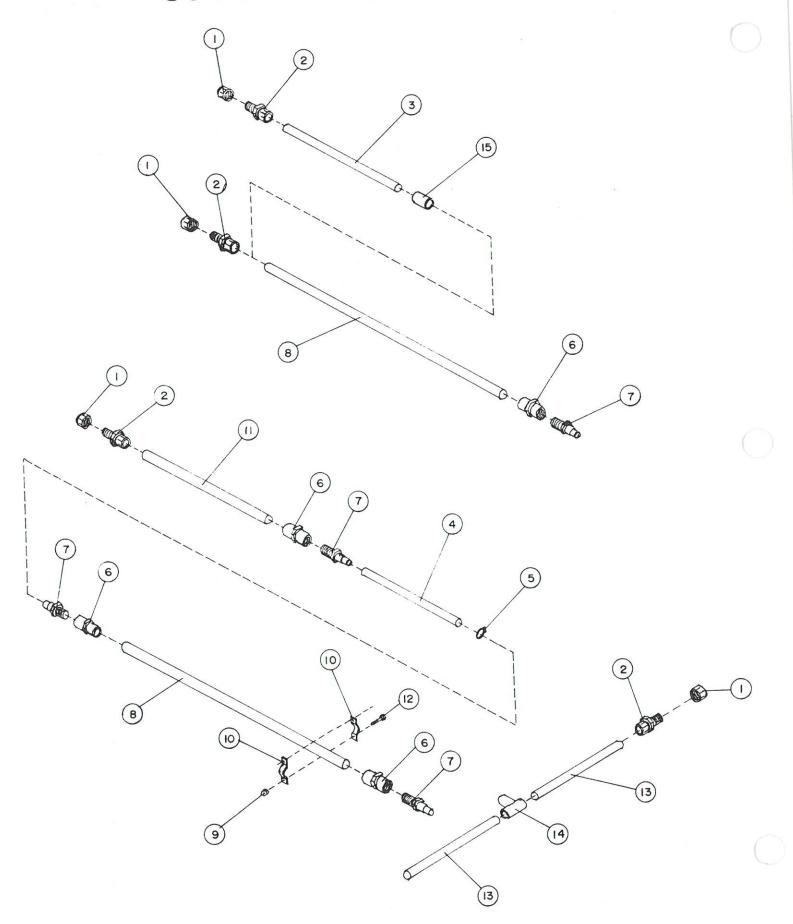




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Centre & Wing Booms





			ROCKMASTER LAURIER
	PART NUMBER	DESCRIPTION	Nº
1	93006	1" PVC Cap 1" FPT	
2 3	93007	II" PVC Adaptor 1" MPT 1" COC	*
	93074	I real wind Boom Extention (Soc Dans ") *
	93029	Rubber Hose 1" Gear Clamp	*
6	93011	1" PVC Adaptor 1" FPT, 1" SOC	*
7	93012	1 HOSE Barn. I" MPT	*
8	INFOOCE	Regular Size Wing Boom (Soc Bare "	*
	LN5C06P 50013	Lockital 3/6	*
11	30013	Boom Clamp	*
12	B5C0616P	Rear Wing Boom (See Page #) Bolt 3/8" x 1"	*
13		Centre Boom (See page #)	*
	93013	I PVC Tee	*
15 9	3073	1" PVC Adaptor 1" SOC	*
		*As Required	
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