

Commercial High Flow Hydraulic Power Unit

HP35

For

Tractors with 80-150 PTO HP 540 RPM input speed

> Operator's Manual Set-Up Assembly Maintenance Parts Information



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REFERENCE INFORMATION

Write the correct information for your attachment in the spaces below. Always refer to this serial number when calling for service or parts.

Serial Number.....

YOUR ATTACHMENTS DEALER

ADDRESS:

PHONE:

CONTACT:

NOTE: Erskine Attachments LLC reserves the right to make improvements in design or changes in specifications at any time without notice and without incurring any obligations to install them on units previously sold.

SAFETY

DO NOT use or perform maintenance on this machine until this manual has been read and understood. In addition, read the Operation and Maintenance Manual(s) pertaining to the attachment and the attachment carrier ("Tractor").

The user is responsible for inspecting the machine daily, and for having parts repaired or replaced when continued use of the machine would cause damage, excessive wear to other parts or make the machine unsafe for continued operation.

If an operating procedure, tool device, maintenance or work method not specifically recommended is used; you must satisfy yourself that it is safe for you and others. You must also ensure that the attachment will not be damaged or made unsafe by the procedures you choose.

Erskine Attachments LLC cannot anticipate every possible circumstance that might involve potential hazard. The safety messages found in this manual and on the machine are therefore not all inclusive. The signal words **CAUTION**, **WARNING**, or **DANGER** are used to indicate hazards.

A CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

A WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

A DANGER Indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

The word **IMPORTANT** is used in the text when immediate damage will occur due to improper technique or operation.

The word **NOTE** is used to convey information that is out of context with the manual text; special information such as specifications, techniques, reference information, and other information of a supplementary nature.

Improper operation can cause serious injury or death.

Pre-operation

- This attachment is designed to generate continuous hydraulic flow to run attachments mounted on the front of a tractor only. **NEVER** use this machine for any other purpose.
- Read the operators manual for the "Tractor". **NEVER** allow untrained people to operate.
- Operating instructions must be given to everyone before operating this attachment and at least once a year thereafter in accordance with OSHA regulations.
- **NEVER** exceed the maximum recommended input power or speed specifications for the attachment. Over-powering or over-speeding the attachment may cause personal injury and/or machine damage.
- **NEVER** use machine with an attachment that is heavier than the rated lift capacity of the tractor. Instability can lead to serious injury or death.
- Keep all shields, guards, and covers in place.
- Do not modify equipment or add attachments that are not approved by Erskine Attachments LLC.
- Use adequate safety warning lights and devices as required by local regulations. Obey all local laws and regulations regarding machine operation on public property.
- Only use attachment with a tractor equipped with a Roll Over Protection System (ROPS) and seatbelt.

Operation

- Avoid loose fitting clothing. Clothing caught in moving parts may lead to serious injury or death.
- To protect the operator from hearing loss, ear protection is required unless the tractor is equipped with a noise reduction cab that meets OSHA 1910.95 standard.
- Hydraulic connections may be hot after use. Use gloves if connecting or disconnecting after use.

Operation

- Check and be sure all operating controls are in neutral before starting the engine.
- Keep people away from tractor and attachment when in use.
- **NEVER** operate near embankments or terrain that is so steep that rollover could occur.
- Always stay in the operator position with seatbelt fastened when using the attachment.
- Before leaving the operators position, disengage PTO drive, stop engine, set park brake, and wait for all motion to stop.
- **NEVER** place hands near attachment while engine is running.

Avoid High Pressure Fluids Hazard



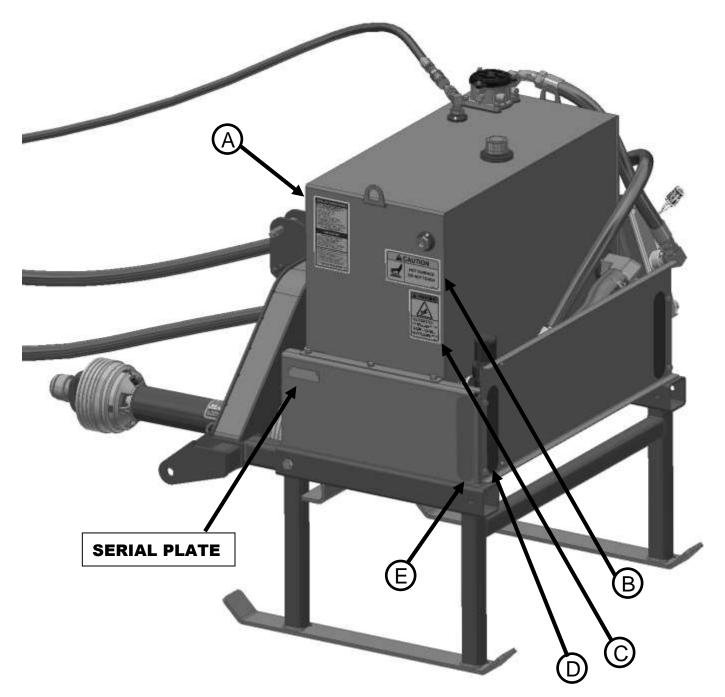
- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving the pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when servicing or performing maintenance on hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

Maintenance

- NEVER make adjustments, lubricate, clean, or perform any service on the machine while it is in operation.
- Make sure the attachment is serviced on a daily basis. Improper maintenance can cause serious injury or death in addition to damage to the attachment and/or your equipment.

Serial Number Location:

It is important to refer to the serial number of your attachment when making repairs or ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use different procedures in doing a specific operation.



SERIAL NUMBER AND SAFETY DECAL LOCATIONS



Part Number: 423956 Location: Left side of tank Quantity: 1

Large Brand Decal Location: Rear of frame Quantity: 1



Part Number: 300447 Location: Both sides of tank Quantity: 2



Part number: 200001 Location: Left side of tank Quantity: 1

D

Part number: 317694 Location: Back side of tank Quantity: 2



Part number: 300245 Location: Left and right side of tank Quantity: 2

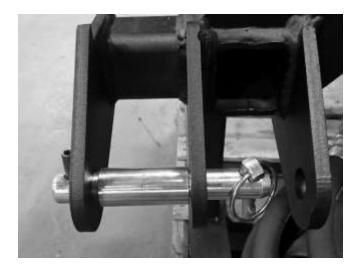
Safety Decal Locations:

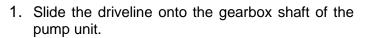
The locations of the safety decals are shown. If these decals are missing, damaged, or painted over they must be replaced. Call Erskine Attachments LLC (218-435-4045) for replacement decals.

SET-UP ASSEMBLY

After uncrating the unit, use the following instructions to assemble to PTO power unit.





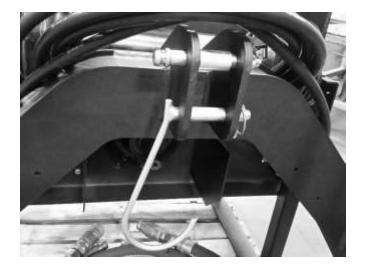


IMPORTANT: Make sure the driveline is locked into the groove of the gearbox input shaft by pulling on the driveline.

- 2. Rest the driveline in the J-shaped hanger.
- 3. Place the lower 3-point pins in the appropriate location to match the hitch category of your tractor. The inner set of ears are CAT II and the outer set are CAT III.
- 4. The top pin has two positions. The pin should be mounted in the top hole when connecting the tractor top link directly to the tank. The pin should be mounted in the bottom hole when connecting to the tank using a quick-hitch system.

NOTE: Additional bushings may be needed on the upper and lower pins if using a quick-hitch system. These are usually supplied with the quick hitch and therefore not supplied with the power unit.

5. Proceed to the mounting instructions.



MOUNTING INSTRUCTIONS

After the initial set-up assembly is completed use the following procedure to mount the PTO pump to the tractor for user operation.

- 1. Mount the tank to the tractor 3-point arms (Category II or III). Be sure to install the lynch pins to secure the tank to the tractor.
- Slide the driveline fully onto the tractor PTO shaft. Make sure the locking collar is engaged. If the tractor PTO shield interferes with the installation, the shield may need to be removed or rotated up.

A WARNING Always reinstall the PTO shaft shield when the PTO pump is not connected to the tractor. See the tractor's operator's manual for instructions.

3. Check to make sure the driveline has enough overlap and does not bottom out through the entire range of movement of the 3-point arms. If the driveline is too short or too long, the 3-point mount frame can be moved fore or aft by unbolting and sliding it. There are three different positions available, each 2" apart.

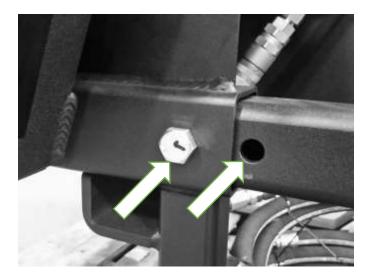
NOTE: It may be necessary to reposition or remove the drawbar to prevent interference with the driveline. See the tractor's operator's manual for instructions.

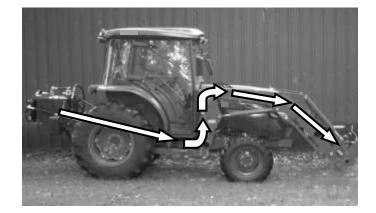
4. Route the lead hoses over the rear axle, under the tractor cab, and along the loader arms. Use plastic cable ties to mount the hoses to the tractor frame and loader arms.

IMPORTANT: Be sure to route the hoses near the loader pivot points to prevent the hoses from being stretched when the loader is raised.

NOTE: Make sure the hoses are properly routed to fit your specific tractor. If the hoses are not routed correctly, they may get pinched, stretched, pulled off, or rub on tires. Be sure to check hose routing through the full range of motion of the loader and attachment before operating. More than one routing may be acceptable depending on the tractor. Use the routing that best fits your tractor.

NOTE: Proper hose routing is the responsibility of the owner and/or operator. <u>Pinched, rubbed, or</u> <u>stretched hoses are not covered under warranty.</u>





MOUNTING INSTRUCTIONS

5. Route the cooler fan wire harness to the tractor battery. Connect the red (fused) wire to the positive (+) terminal of the battery and the black wire to the negative (-) terminal of the battery.

IMPORTANT: Make sure the fuse is operational and rated for a minimum of 40 amps.

6. Connect the rear set of hydraulic quick couplers to the lead hoses, and the cooler fan wire harness to the cooler fan connector.

IMPORTANT: Make sure the quick couplers are fully engaged. If couplers will not engage, do not force quick couplers together.

NOTE: Attachment is shipped with 16FJX (1-5/16" Female JIC Swivel) fittings on the ends of the lead hoses.

- 7. Check all fittings to make sure they are tight.
- Fill the tank with the correct grade of NEW hydraulic oil (or other approved fluid) until the oil level is centered in the sight gauge on the left side of the tank. The tank capacity is 33 gallons (125 L), but up to an additional 3 gallons (11.4 L) may be needed to fill the hoses and attachment.
- 9. Connect the two lead hoses together at the front of the loader and test run the pump at low speed to check for leaks and to flush the system.

IMPORTANT: Do not flush the system with the lead hoses connected to an attachment or contamination may become lodged in the attachment system.

10. Run the system at full throttle for at least 15 minutes to flush the system of any possible contamination.

IMPORTANT: Always engage the PTO drive with the engine at low speed. This is especially important during cold weather start-ups.

11. Mounting is now complete and the PTO pump is ready for operation.

Oil Grade Selection

Use the proper oil grade for the weather conditions anticipated during operation.

Cold: -20°F to 40°F (-29°C to 4°C)

Use ISO 32 (10W) or less hydraulic fluid (full synthetic strongly recommended). Alternate: 10W-30 motor oil or ATF.

Automotive type crankcase oils with American Petroleum Institute (API) letter designations SE, SF, SG, SH or higher (per SAE J183) classes of oils are acceptable. These types of oils generally exhibit less shear stability, which can result in higher loss of viscosity during service life.

IMPORTANT: In cold weather, always preheat the oil using the supplied 1000W oil heater to prevent pump cavitation. Run the PTO pump at low speed for at least 15 minutes to warm the system up to at least 50°F before operating under load.

Warm: 40°F to 100°F (4°C to 38°C)

Use ISO 32 (10W) or greater.

NOTE: See page 25 for oil viscosity information.

- 1. With the operator in the seat of the tractor and the seatbelt fastened, start the engine.
- 2. Raise the 3-point arms until the driveline is relatively straight and the legs have adequate clearance with the ground.
- 3. Connect the lead hoses to an attachment mounted on the front of the tractor.
- 4. With the engine at low speed, engage the tractor PTO drive.

IMPORTANT: Engine must be at idle speed when engaging PTO drive.

- Run the PTO pump at low speed for at least 15 minutes to warm the oil and check the system for leaks. A 1000W oil heater is installed in the tank and should be plugged in if the tank is not stored inside a heated building.
- 6. Once the oil has reached at least 50°F, throttle the tractor engine up to working RPM.

IMPORTANT: Never operate the PTO pump at a PTO speed exceeding 600 RPM. This will damage the PTO pump and void all warranties.

NOTE: The PTO pump will produce the rated flow rate and pressure when the tractor PTO is run at standard 540 RPM. Most tractor PTO's will run at a slightly higher RPM at full throttle. It is acceptable to run the tractor at full throttle.

7. Operate the attachment as described in the attachment's operator's manual.

IMPORTANT: Never operate the PTO pump with an attachment that is not rated for at least 35 GPM and 4000 PSI.

 There is a small LED light on the cooler wire harness that will light up when the thermostat turns on the cooler fan. This tells the operator that the cooler fan is operating. The thermostat is set at 115°F (46°C).

OPERATING INSTRUCTIONS

Things to DO while operating:

- Monitor the system for leaks.
- Monitor the cooler harness LED (if equipped) to ensure that the fan is operating.
- Monitor the system temperature if the cooler LED light stays lit continuously.
- Make sure the cooler is free of dirt and debris for maximum cooling capacity.

Things to AVOID while operating:

- Prolonged stalling of the attachment.
- Operating for extended periods of time at maximum power.
- Operating with the cooler fan harness disconnected.
- Operating the power unit with a low oil level.

Oil Temperature and Duty Cycle Information

Heat is the enemy of every hydraulic system. Every hydraulic system is susceptible to overheating, even when operating in subzero temperatures.

While every precaution has been taken to ensure a reliable system, the operator has a responsibility to operate the system within the design limits.

IMPORTANT: The maximum allowable oil temperature is 180°F (82°C).

Above this limit, the oil viscosity can be reduced to the point where it will not lubricate the pump sufficiently, leading to system failure.

The oil temperature is a function of the amount of time the system is working, versus the "rest" time (running but not working). The ratio of work time compared to total run time is called the duty cycle.

Example: A machine with a duty cycle of 50% is meant to work 5 minutes out of every 10 minutes.

The following duty cycles only apply to systems operating in ambient air temperatures from $0^{\circ}F$ to $40^{\circ}F$ (-18°C to 4°C).

HP35 – 75% duty cycle maximum

At ambient air temperatures above 40°F the duty cycle is reduced.

A thermometer is located on the front side of the tank to make monitoring oil temperature more convenient. **A WARNING** Lower the attachment to rest on the ground, disengage the PTO, set the park brake, shut down the engine, remove the key, and wait for all motion to stop before leaving the operator's seat to perform service of any kind.

It is the operator's responsibility to make daily inspections of the attachment and tractor for damage, loose bolts, fluid leaks, or anything else that could cause a potential service or safety problem. Preventive maintenance is the easiest and least expensive type of maintenance.

IMPORTANT: Bolts and set screws can loosen after initial usage. After first hour of operation check all bolts and set screws.

IMPORTANT: The filter element (P/N 310999) should be replaced after the first 50 hours of operation or after 1 year, whichever comes first. Thereafter, it should be replaced after every 250 hours of operation or after every 3 years, whichever comes first. More frequent filter changes may be required based on operating conditions.

1. Remove the cover bolts with a 10mm socket and remove the cover.

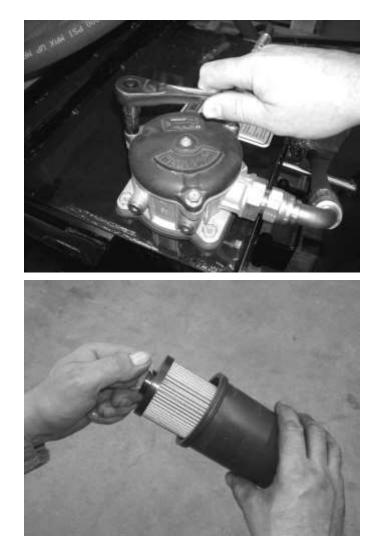
NOTE: To prevent contamination, wipe the area around the filter clean before removing the cover.

- 2. Remove the filter element from the plastic can.
- 3. Install the new filter element.
- 4. Reinstall the cover and bolts. Tighten bolts to maximum 7 ft-lbs. Do not overtighten.

IMPORTANT: Improper maintenance can cause extensive damage to the power unit, attachment, and your equipment.

Oil Change Interval

- Change the hydraulic oil every 250 hours or every 3 years, whichever comes first. More frequent changes may be required based on operating conditions. Be sure to replace with the correct grade and type of oil for the expected operating conditions.
- The drain plug is located on the bottom of the tank. Tighten the plug after the old oil is drained. Check for leaks after new oil has been added.
- Change the gearbox lube every 250 hours or every 3 years, whichever comes first. Fill to between 1/3 and 1/2 full (approximately 38 oz.) with 80W-90 gear lube.



Cooler Maintenance

Make sure the oil cooler is clean and free of debris before operating the power unit. If dirty, clean the cooler fins by flushing them with clean water or blowing it out with compressed air.

A CAUTION Wear safety gasses meeting ANSI z87.1 standard when cleaning with water pressure or compressed air.

Nominal	SAE J429 Grade 2			SAE J429 Grade 5		SAE J429 Grade 8			
Thread Size	Clamp	Tightening Torque		Clamp Tightening		Torque	Clamp	Tightening	Torque
	Load (lbs)	K = .15	K = .20	Load (lbs)	K = .15	K = .20	Load (lbs)	K = .15	K = .20
			Unified	Coarse Thr	ead Series				
1/4-20	1,300	49 in-lbs	65 in-lbs	2,000	75 in-lbs	100 in-lbs	2,850	107 in-lbs	143 in-Ibs
5/16-18	2,150	101	134	3,350	157	210	4700	220	305
3/8-16	3,200	15 ft-lbs	20 ft-lbs	4,950	23 ft-lbs	31 ft-lbs	6,950	32.5 ft-lbs	44 ft-lbs
7/16-14	4,400	24	30	6,800	37	50	9,600	53	70
1/2-13	5,850	36.5	49	9,050	57	75	12,800	80	107
9/16-12	7,500	53	70	11,600	82	109	16,400	115	154
5/8-11	9,300	73	97	14,500	113	151	20,300	159	211
3/4-10	13,800	129	173	21,300	200	266	30,100	282	376
7/8-9	11,425	125	166	29,435	321	430	41,550	454	606
1-8	15,000	187.5	250	38,600	482.5	640	54,540	680	900
			Unified	Fine Thread	Series				
1/4-28	1,500	55 in-lbs	75 in-lbs	2,300	85 in-lbs	115 in-lbs	3,250	120 in-lbs	163 in-lbs
5/16-24	2,400	112	150	3,700	173	230	5,200	245	325
3/8-24	3,600	17 ft-lbs	22.5 ft-lbs	5,600	26 ft-lbs	35 ft-lbs	7,900	37 ft-lbs	50 ft-lbs
7/16-20	4,900	27	36	7,550	42	55	10,700	59	78
1/2-20	6,600	41	55	10,200	64	85	14,400	90	120
9/16-18	8,400	59	79	13,000	92	122	18,300	129	172
5/8-18	10,600	83	110	16,300	128	170	23,000	180	240
3/4-16	15,400	144	193	23,800	223	298	33,600	315	420
7/8-14	12,610	138	184	32,480	355	473	45,855	500	668
1-12	16,410	205	273	42,270	528	704	59,670	745	995

Torque-Tension Relationships for SAE J429 Grade Bolts

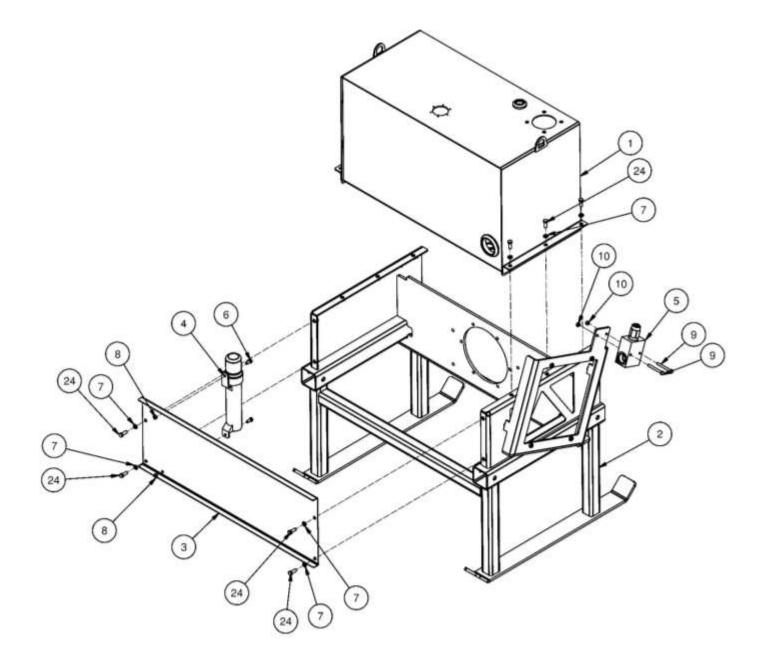
Clamp load estimated as 75% of proof load for specified bolts.

Torque values for $\frac{1}{4}$ and $\frac{5}{16}$ inch series are in inch-pounds. All other torque values are in foot-pounds. Torque values calculated from formula T = KDF

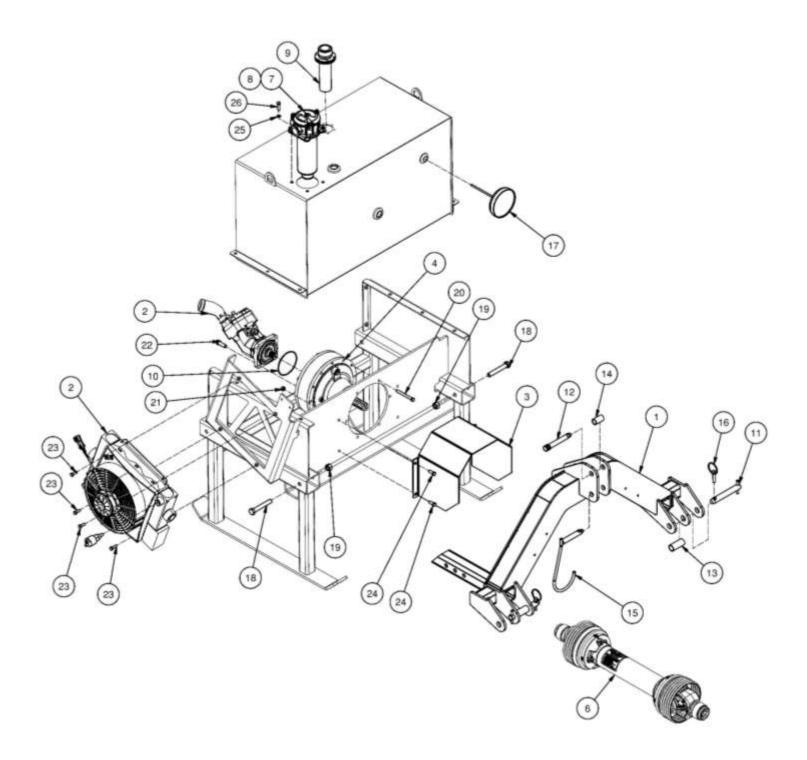
where: K=0.15 for "lubricated" conditions

K=0.20 for "dry" conditions

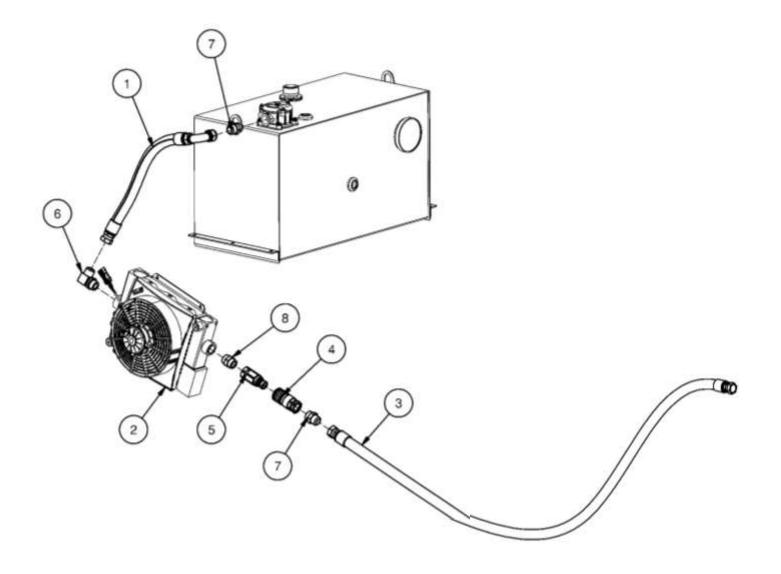
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	423900	TANK PTO 36 GAL W/A	
2	1	423901	FRAME PTO PUMP HF W/A	
3	1	423946	BRKT COVER REAR PAINTED	
4	1	330864	HOLDER MANUAL CANISTER 12.5 X 2.25	
5	1	423928	VALVE ASSM RELIEF 4000 PSI	
6	2	13053	BOLT HEX	5/16 X 3/4 NC GR 5
7	10	103880	WASHER LOCK	3/8"
8	2	36304	NUT HEX FULL	5/16 NC GR5 Z
9	2	13064	BOLT HEX	5/16 X 2-3/4 NC GR 5
10	2	37211	NUT REV LOCK	5/16 NC GR A Z
24	10	13105	BOLT HEX	3/8 X 1 NC GR 5



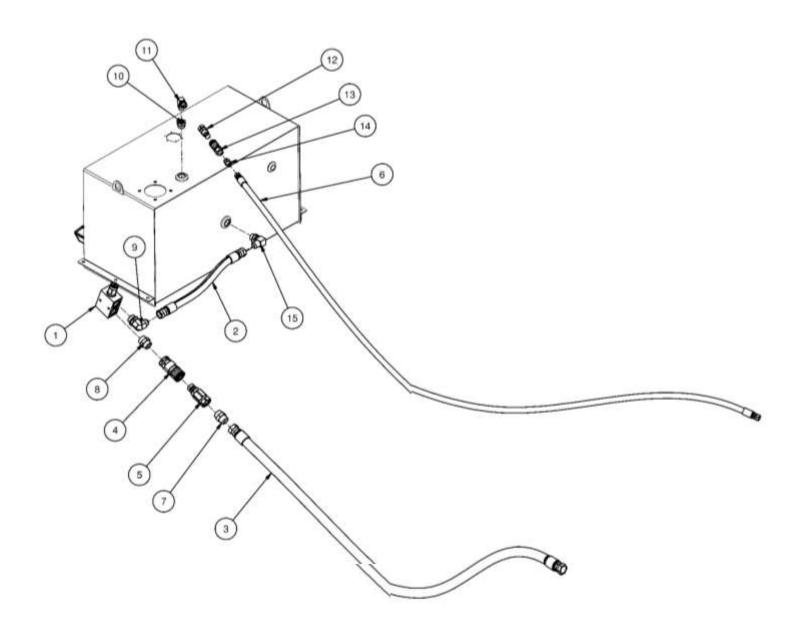
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	423902	MOUNT 3PT CAT 2/3 W/A	
2	1	423923	COOLER HD D20 PTO PUMP HF	
3	1	423939	BRKT SHIELD DRIVELINE PAINTED	
4	1	423922	GEARBOX PLANETARY 1:3.92 6T-15T	
5	1	423924	PUMP 3.84 CID SAE B 4-B PISTON	
6	1	423957	DRIVELN 55S 6T X 6T X 33	
7	1	310998	FILTER IN TANK W/ELEMENT 10 MICRON LONG	
8	1	310999	FILTER ELEMENT 10 MICRON 8.3"	
9	1	310940	FILLER BREATHER TANK 6 IN	
10	1	310974	O-RING 4 X 3/32 (-155)	
11	1	300583	PIN 3-PT CAT1 LOWER 7/8 X 5	
12	1	300460	PIN 3-PT CAT1 TOP 3/4 X 3-7/8	
13	1	420069	BUSH 1.10 X .91 X 2.5 Z	
14	1	420070	BUSH 1 X .78 X 1.69 Z	
15	1	420420	HOOK PIN DRIVELINE W/A Z	
16	4	104432	PIN LYNCH 7/16 X 1-3/4	
17	1	423916	THERMOMETER STR 5 OD -6 L-1/2 NPT	
18	2	13319	BOLT HEX	5/8 X 4 NC GR 5
19	2	37216	NUT REV LOCK	5/8 NC GR A Z
20	6	13117	BOLT HEX	3/8 X 3-1/2 NC GR 5
21	4	37212	NUT REV LOCK	3/8 NC GR A Z
22	4	22876	BOLT FLG 12PT	1/2 X 1-1/2 NC Z
23	4	13055	BOLT HEX	5/16 X 1 NC GR 5
24	4	13105	BOLT HEX	3/8 X 1 NC GR 5
25	4	33620	WASHER LOCK	5/16"
26	4	13057	BOLT HEX	5/16 X 1-1/4 NC GR 5
	1	310932	THERMOSTAT 115F	



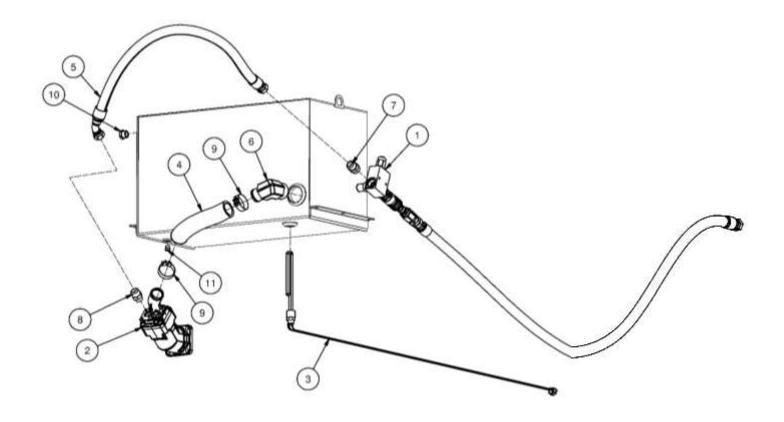
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	423950	HOSE 1 X 26 16FJX-16FJX-90 (3000 PSI)	
2	1	423923	COOLER HD D20 PTO PUMP HF	
3	1	423941	HOSE 1 X 240 16FJX-16FJX (4000 PSI)	
4	1	423943	COUPLER HYD 3/4-16OR FM FF	
5	1	423944	COUPLER HYD 3/4-16OR M FF	
6	1	300661	ADPT ELB 16MB-16MJ-90	
7	2	201528	ADPT STR 16MB-16MJ	
8	1	423929	ADPT STR 16MB-16MB	



ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	423928	VALVE ASSM RELIEF 4000 PSI	
2	1	423949	HOSE 3/4 X 21 12FJX - 12FJX (3000 PSI)	
3	1	423941	HOSE 1 X 240 16FJX-16FJX (4000 PSI)	
4	1	423943	COUPLER HYD 3/4-16OR FM FF	
5	1	423944	COUPLER HYD 3/4-16OR M FF	
6	1	423952	HOSE 1/2 X 260 8FJX-8FJX	
7	1	201528	ADPT STR 16MB-16MJ	
8	1	423929	ADPT STR 16MB-16MB	
9	1	330773	ADPT ELB 16MB-12MJ-90	
10	1	318897	ADPT BUSH 12MB-8FB	
11	1	423955	ADPT ELB 8MB-8MB-90	
12	1	201934	COUPLER HYD 3/8-80R M FF	
13	1	201933	COUPLER HYD 3/8-80R FM FF	
14	1	300273	ADPT STR 8MB-8MJ	
15	1	300262	ADPT ELB 12MB-12MJ-90	

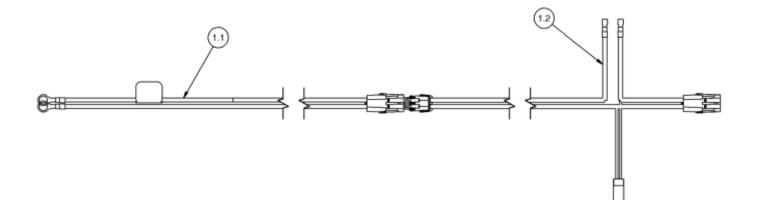


ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	423928	VALVE ASSM RELIEF 4000 PSI	
2	1	423924	PUMP 3.84 CID SAE B 4-B PISTON	
3	1	423958	HEATER TANK 1-NPT 1000W ASSM	
4	1	423951	HOSE 2 X 12 SUCTION 7219-EZ FORM	
5	1	423948	HOSE 1 X 48 16FJX-16FJX-45 (4000 PSI)	
6	1	423919	ADPT ELB 32MB- 2 BARB-90	
7	1	201528	ADPT STR 16MB-16MJ	
8	1	201526	ADPT STR 12MB-16MJ	
9	2	423920	CLAMP T-BOLT 2.5	
10	1	310931	GAUGE SIGHT 12MB	
11	1	320102	ADPT PLUG 6MB	



PARTS INFORMATION

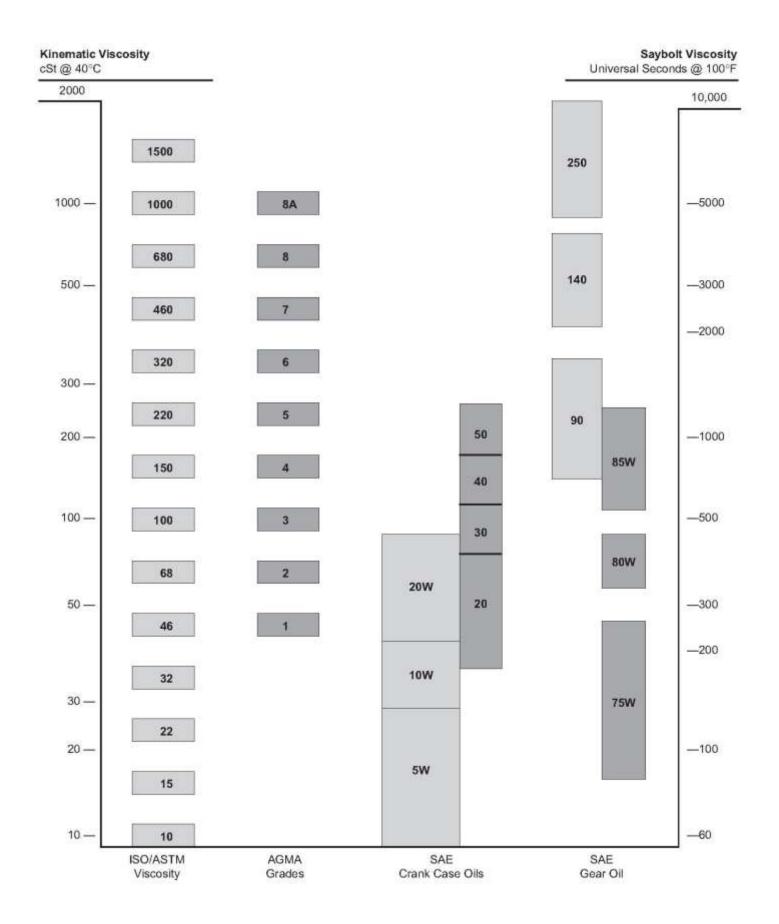
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NUMBER
1	1	423912	KIT WIRE HRN COOLER LARGE	
1.1	1	423913	HRN WIRE COOLER TRACTOR SIDE	
1.2	1	423914	HRN WIRE COOLER TANK SIDE	



GENERAL SPECIFICATIONS

Model	HP35
Rated PTO Input Speed	540 RPM
PTO Input Power Range	80-150 HP
Operating Weight (w/out oil)	630 lbs.
Tank Capacity	33 gallons
Rated Pressure	4000 PSI
Rated Flow @ 540 RPM	35 GPM
Hydraulic Cooler	Standard Equipment
Tractor Mount	Cat. II or Cat. III
Filter Type	In-Tank 10 Micron absolute

OIL VISCOSITY CHART





LIMITED WARRANTY

Erskine Attachments LLC warrants each new machine manufactured by us to be free from defects in material and workmanship for a period of twenty-four (24) months from date of delivery to the original purchaser.

Our obligation under this warranty is to replace free of charge, at our factory or authorized dealership, any part proven defective within the stated warranty time limit.

All parts must be returned freight prepaid and adequately packaged to prevent damage in transit.

This warranty does not cover:

- 1. New products which have been operated in excess of rated capacities or negligence
- 2. Misuse, abuse, accidents or damage due to improperly routed hoses
- 3. Machines which have been altered, modified or repaired in any manner not authorized by our company
- 4. Previously owned equipment
- 5. Any ground engaging tools in which natural wear is involved, i.e. tooth tips, cutting teeth, etc.
- 6. Normal maintenance
- 7. Fork tines
- 8. Hydraulic motors that have been disassembled in any manor

In no event will the Sales Representative, Dealership, Erskine Attachments LLC, or any other company affiliated with it or them be liable for incidental or consequential damages or injuries, including but not limited to the loss of profit, rental or substitute equipment or other commercial loss. Purchaser's sole and exclusive remedy being as provided here in above.

Erskine Attachments LLC must receive immediate notification of defect and no allowance will be made for repairs without our consent or approval.

This warranty is in lieu of all other warranties, express or implied by law or otherwise, and there is no warranty of merchantability or fitness purpose.

No agent, employee, or representative of Erskine Attachments LLC has any authority to bind Erskine Attachments LLC to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms apply.

This warranty may not be enlarged or modified in any manner except in writing signed by an executive officer of Erskine Attachments LLC to improve its products whenever it is possible and practical to do so. Erskine Attachments LLC reserves the right to make changes and or add improvements at any time without incurring any obligation to make such changes or add such improvements to products previously sold.

Erskine Attachments LLC P.O. Box 1083 Alexandria, MN 56308 Phone (218) 435-4045 Fax (218) 435-5293



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