



APPLICATION UPDATE

Number 4
Revision 2

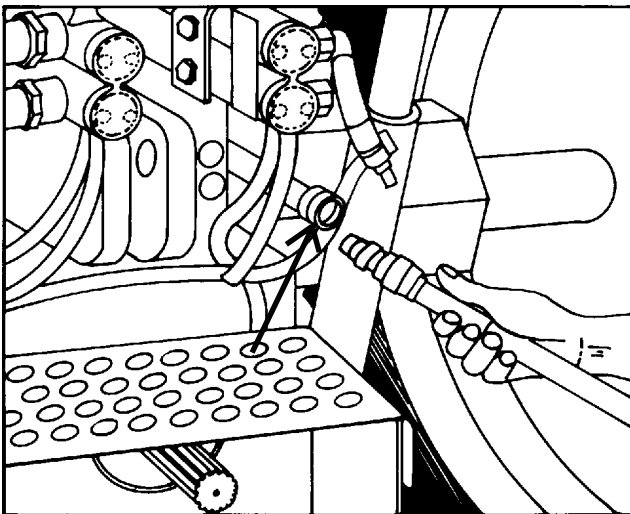
ADAPTING THE ACE FMC-HYD PUMP TO CASE-IH MAGNUM AND MAXXUM TRACTORS

Case-IH 7100 and 7200 Series Magnum, 5100 and 5200 Series Maxxum, and Series 9100 and 9200 4-wheel drive tractors all have a LOAD SENSING CLOSED CENTER hydraulic system, also known as Pressure Flow Compensating (PFC) system.

PUMP SELECTION:

ACE recommends using either the FMC-HYD-210, FMC-150-HYD-206, FMC-200-HYD-210, or the FMC-200-HYD-304 pump models on these tractors.

Case-IH also has an optional LOW PRESSURE RETURN CIRCUIT (reference Case-IH kit part numbers: A67880, 134267C1, or 1348340C1) which bypasses the remote ports and returns oil directly to the main valve bank. ACE highly recommends using this kit since it reduces heat added to the hydraulic system and minimizes the occurrence of hydraulic motor failure. The illustration below shows where the low pressure return connection is located.



The performance of the ACE sprayer pump is controlled by adjusting the Hydraulic Flow Control on the tractor. On tractors where the flow control is in the cab, there is a "Rabbit/Turtle" lever. On other Case-IH tractors, the flow control is located outside the cab on the hydraulic valve.

TO CONNECT THE PUMP:

- 1) Close the needle valve on the ACE motor by turning fully clockwise.
- 2) **Do Not** install a restrictor orifice in the ACE motor. A flow limiter may be installed (not required) in the inlet port of the motor to prevent damage from possible motor overspeeding.
- 3) For most applications, use the number 1 set of hydraulic ports for priority flow. When lifting a large implement, consider using the other remote ports for your ACE pump.
- 4) Connect the hydraulic hoses so that the pump runs with the hydraulic lever in the "LOWER" position and the pump is off in the "FLOAT" position. The control lever has a lock-out tab which prevents the lever from returning to the "NEUTRAL" position.

TO SET THE FLOW CONTROL:

- 1) Turn flow control to the full "OFF" position.
- 2) Shut off boom and agitation valves on the sprayer.
- 3) Move hydraulic lever from "FLOAT" to "LOWER".
- 4) Set the hydraulic flow control lever or knob on the tractor so that the shut-off pressure shown on the sprayer pressure gauge does not exceed the maximum listed below.
- 5) Open the agitation valve to get the desired spraying pressure.

MAXIMUM SHUT-OFF PRESSURE:

- 100 PSI for FMC-HYD Series
- 120 PSI for FMC-150-HYD-206
- 80 PSI for FMC-200-HYD-210
- 120 PSI for FMC-200-HYD-304

CAUTION: DO NOT EXCEED THE
MAXIMUM SHUT-OFF PRESSURE

CAUTION: CHECK HYDRAULIC RANGE SETTING BEFORE OPERATING ACE PUMP.

The "Rabbit/Turtle" flow control lever located in the cab has an adjustable range of flow. At the high end of the range, the valve can send in excess of 10 GPM to the ACE motor even though the "Rabbit/Turtle" flow control lever is at its lowest setting. This condition will damage the ACE motor. Have your Case-IH dealer check and adjust the hydraulic valve flow spool cable setting. Refer to Section 9010 in the 7100 Series Tractor Service Manual. The mid-range flow of the "Rabbit/Turtle" adjustment should be 8 GPM.