

Hydraulic Quick Couplers



Instruction Manual

INSTALLATION OF HYDRAULIC COUPLER

(TRAINED PERSONNEL ONLY TO CARRY OUT INSTALLATION)

General Information

May we take this opportunity to thank you for purchasing a Hydraulic Coupler. The coupler has been tailored to the operators needs and gives quick and efficient changeover of attachments.

SAFETY NOTE

NEVER OPERATE COUPLER WITHOUT THE SAFETY PIN INSTALLED.

NEVER USE FRONT JAW/REAR HOOK FOR LIFTING PURPOSE (LIFTING EYE ONLY).

NEVER EXCEED THE SAFE WORKING LOAD ON LIFTING EYE.

NEVER TRY TO RELEASE THE COUPLER WHILE THE SAFETY PIN IS IN POSITION.

Before commencing installation, unpack the fitting kit and check that all items are present. Read the relevant sections concerning the fitting of the Hydraulic Quick Coupler contained within this manual and ensure all fitting and assembly instructions are fully understood.

Note: Disconnect the battery before commencing any work on the electrical or hydraulic system.

STEP 1. COUPLER INSTALLATION

Remove the standard OEM attachment from machine and replace with coupler using standard bucket pins. (shim & grease)

STEP 2. HYDRAULIC HOSES

Install suitable fittings and dowty seals to hydraulic cylinder to accept the spring guarded hydraulic hoses.

Start machine and curl coupler to fully crowded position. (i.e. extend crowd cylinder fully)

Position first hydraulic hose clamp approximately 10 inches from bottom of dipper stick with the spring-guarded hoses in neat position with minimal slack around bottom of dipper stick. Please see Fig 2-1

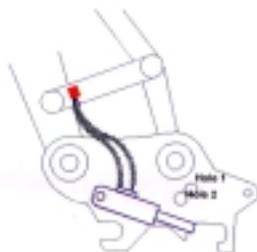
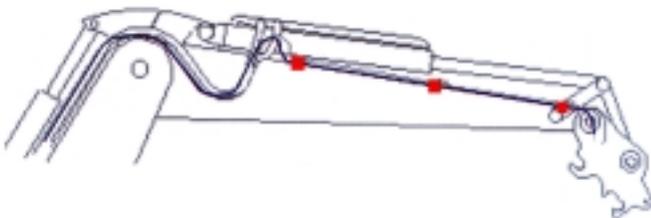


Fig 2-1



Attach the (2) hydraulic hoses suitable for running the length of the dipper stick & secure clamps for retaining hydraulic hoses to dipper stick. The (2) hoses should then be cable tied to existing hydraulic hoses running from crown cylinder to valve bank.

Attach the two longest hydraulic pipes & cable tie to existing hydraulic pipes running down the boom.

STEP 3. SOLENOID VALVE INSTALLATION

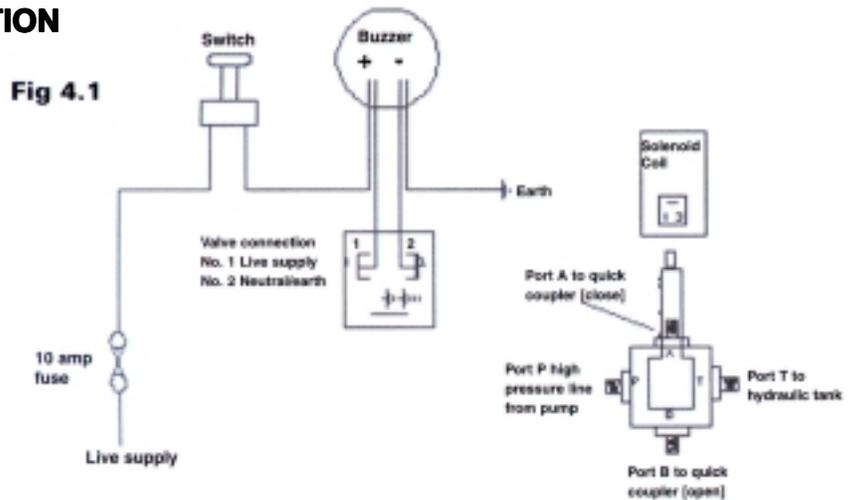
Insert suitable fittings and dowty seals to solenoid valve. Mount solenoid valve in a safe and dry position close to the main hydraulic pump.

Locate a pipe between the hydraulic oil tank and solenoid valve (Port T) for the return of hydraulic oil. Ports A & B on the solenoid valve must be attached to the hydraulic pipes that have been cable tied to the boom. (pipe A to close coupler, pipe B to open coupler)

Locate maximum pump pressure via test port or tap into main pressure pipe between pump and valve bank on the crown cylinder circuit. A restrictor is supplied that must be fitted between the pump and port P on solenoid valve. (DO NOT USE SERVO PRESSURE TO OPERATE)

STEP 4. ELECTRICAL INSTALLATION

Find a safe position in the cab to install switch and buzzer. (This must be located where it can not be accidentally activated.) Always fuse live supply with 10-amp fuse. Follow wiring diagram. Fig 4-1



STEP 5. TESTING COUPLER

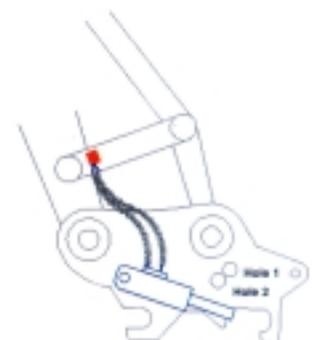
Remove safety pin from coupler. Accelerate the excavator to no more than 50% rpm.

Crowd coupler fully (extend crowd cylinder). Activate switch & put hydraulic system under pressure by continuing to extend crowd cylinder. Only when the switch is in the on position should the buzzer sound and power allowed to energize the solenoid valve which will put the coupler in the open position. When the switch is in the off position the solenoid should have no electric current running to it and the coupler will return to the closed position. Open and close the coupler several times to assist air bleed from the system. Check all hydraulic fittings on the coupler system and rectify any hydraulic oil leaks.

GUIDE TO ATTACHMENT PIN CENTERS ON THE DOUBLE SAFETY PIN COUPLER

COUPLER RECOMMENDED FOR USE ON OEM CONFIGURED ATTACHMENTS

| PIN DIAMETER OF ATTACHMENT | SAFETY PIN ATTACHMENT HOLE 1 PIN CENTER | SAFETY PIN ATTACHMENT HOLE 2 PIN CENTER |
|----------------------------|---|---|
| (mm) | (mm) | (mm) |
| 45 | 305 - 345 | 290 - 300 |
| 50 | 285 - 325 | 260 - 280 |
| 60 SHORT | 300 - 340 | 270 - 295 |
| 60 LONG | 380 - 420 | 350 - 375 |
| 65 | 385 - 420 | 300 - 380 |
| 70 | 415 - 480 | 375 - 410 |
| 80 | 425 - 475 | 380 - 410 |
| 90 | 500 - 550 | 470 - 495 |



STEP 6. BUCKET OR ATTACHMENT PICKUP

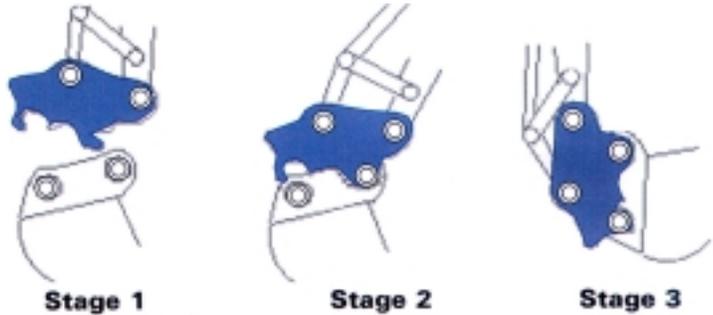
Remove safety pin from coupler. Activate switch to on position. Fully crowd coupler and pressurize hydraulic system (this will open the hydraulic coupler).

- 1.) Position the fixed jaw over the front bucket pin.
- 2.) Engage fixed jaw into front pin of bucket.
- 3.) Crowd the coupler fully until the bucket is in position.

Return switch to off position and pressurize hydraulic system. This will lock your bucket or attachment in position.

Replace safety pin in suitable hole depending on attachment pin centers.

NEVER OPERATE COUPLER WITHOUT THE SAFETY PIN INSTALLED!

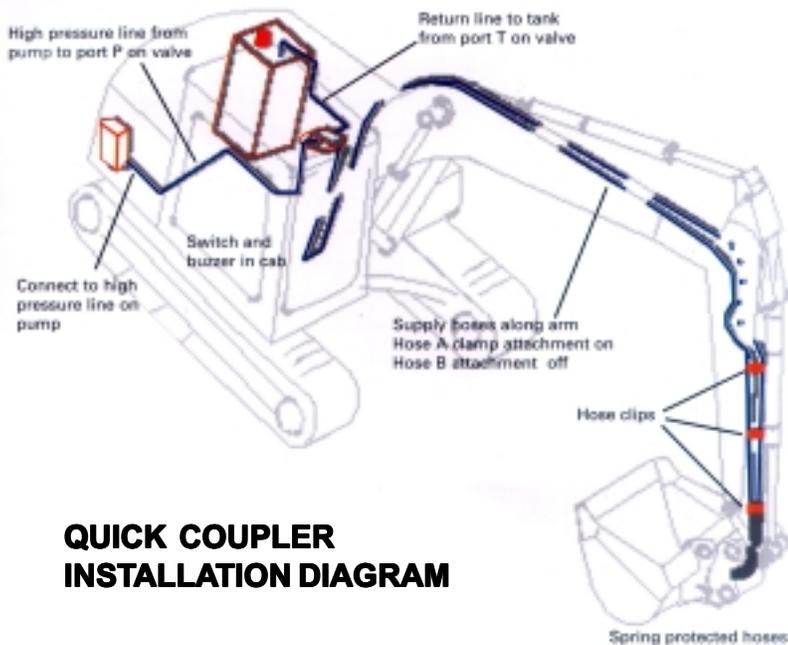
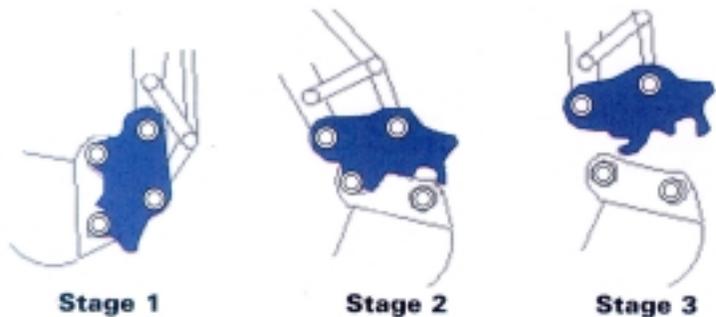


STEP 7. BUCKET OR ATTACHMENT RELEASE

Remove safety pin from coupler.

- 1.) Turn coupler into fully crowded position. Activate switch to on position (buzzer sounding) and pressurize hydraulic system.
- 2.) Slowly, crowd out the coupler with the bucket close to the ground.
- 3.) Lift coupler away from bucket.

The hitch is then ready to pick up a new attachment or bucket.



QUICK COUPLER INSTALLATION DIAGRAM

RECOMMENDED MAINTENANCE

- 1.) Check the coupler, coupler cylinder, & hydraulic pipes for damage & replace or repair as necessary.
- 2.) Check the safety pin to be straight and not damaged, replace or repair as necessary.
- 3.) Grease the rear hook pivot pin as necessary with general purpose grease.