

INSTALLATION MANUAL

REF NO. BA04009

DATE June 15, 2004

(C)

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SUBJECT: INSTALLATION OF AIR DRYER (DESICCANT TYPE, DR-3)
PURPOSE: To introduce an air dryer of desiccant type, DR-3 to the listed wheel loaders.

APPLICATION: WA380-1 Wheel Loader Serial Number 20001 and UP
 WA400-1 Wheel Loader Serial Number 20001 and UP
 WA420-1 Wheel Loader Serial Number 20001 and UP
 WA380-1L Wheel Loader Serial Number A40001 and UP, A45125 and UP
 WA420-1L Wheel Loader Serial Number A25040 and UP
 WF350-1 Compactor Serial Number 10001 and UP

FAILURE CODE: 45AJB3

DESCRIPTION: This Installation Manual introduces how to install the desiccant-type air dryer which has been developed as an optional kit for the above machines. If installed, the benefits described can be obtained:

- (1) Removal of dust and moisture in the air circuit.
- (2) Prevention of lubricating oil loss from the compressor.

MACHINE PREPARATION

1. Park the machine on a flat level surface; lower the work equipment to the ground. Shut off the engine and cycle the controls to remove any residual hydraulic pressure from the work equipment circuits. Turn the parking brake switch on and block the tires.
2. Remove the key from the ignition switch until the repairs are complete. Place a tag on the steering controls advising: "This machine is being repaired. It should not be started or moved for any reason until the tag is removed by the person doing the repairs."



WARNING! Observe all safety and precautionary standards as dictated by the environment and work conditions under which the equipment will be inspected, reworked and repaired. Consult the "Shop Manual" and "Operator's and Maintenance Manual" and your "Komatsu district service manager" with any/all questions regarding safety.

Remark

These instructions are intended to supplement the service data contained in the appropriate "Shop Manual". Always refer to that manual for Removal, Installation, Disassembly and Reassembly instructions when not contained in this document.

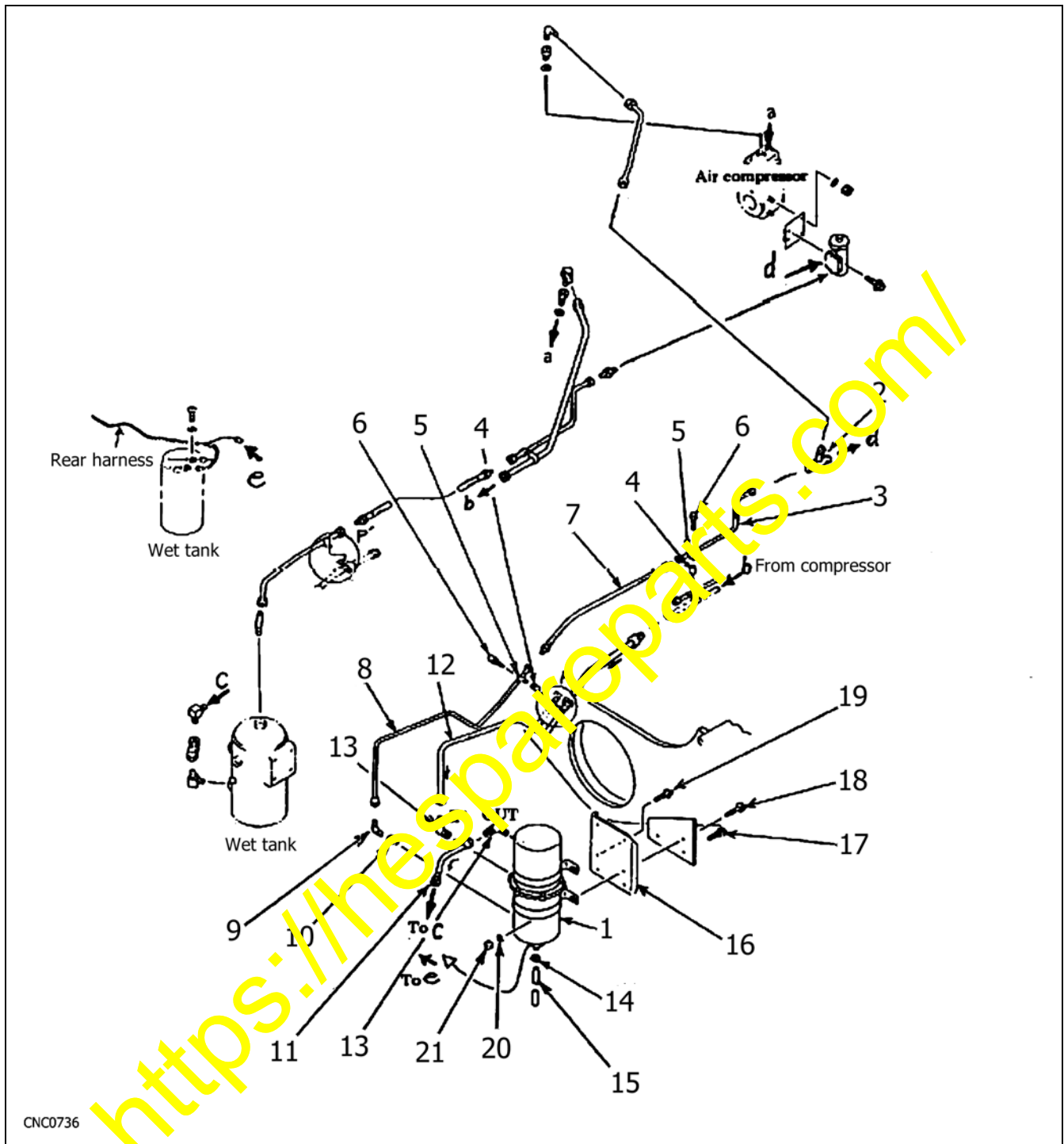
PARTS LIST


No.	Part Number	Description	Qty.	Remark
1	423-35-15100	AIR DRYER	1	
2	423-W90-1570	TEE	1	For air governor
3	424-35-11251	TUBE	1	Air dryer pilot line
4	421-62-14680	SPACER	2	
5	419-09-11160	CLIP	2	
6	01435-01060	BOLT	2	
7	423-35-11710	HOSE	1	
8	423-W90-1560	TUBE	1	Air dryer pilot line
9	421-09-12540	ELBOW	1	
10	07326-30201	NIPPLE	1	
11	423-W90-1550	TUBE	1	Dryer to wet tank
12	423-W90-1540	TUBE	1	Dryer IN
13	421-90-12530	ELBOW	2	IN & OUT of dryer
14	07285-00180	CLIP	1	For drain hose
15	07286-01610	HOSE	1	Drain
16	423-W90-1530	BRACKET	1	Installation of dryer
17	01435-01225	BOLT	2	
18	01435-01055	BOLT	1	
19	01435-01030	BOLT	3	
20	01643-31032	WASHER	4	Securing dryer
21	01580-11008	NUT	4	
22	423-W90-1520	BRACKET	1	For rear frame on WA350/380/WF350
23	424-W90-1520	BRACKET	1	For rear frame on WA400/420

SYSTEM PRECAUTIONS

The dryer desiccant needs to be replaced periodically, otherwise, the desiccant can break down and leak into the air system causing the air operated equipment to malfunction. The standard replacement interval for the desiccant is 2000 hours.

- a. Continue to purge the moisture from the air tanks for approximately one week. This will allow the air dryer the time to catch-up to a dry system.
- b. When operating in weather where temperatures are below -10°C (50°F) after stopping the machine for a few hours start the engine and wait for 10 minutes or more before operating the machine.
- c. Always follow air dryer maintenance instructions in kit 423-35-15110 and dispose of desiccant cartridge properly.



 For part # 01435-01060 and 01030: 3.5 to 7.5 Nm (34.3 to 73.5 ft/lbs)
 For part # 01435-01225 and 01255: 5.5 to 12.5 Nm (53.9 to 122.5 ft/lbs)

REWORK AND MODIFICATION

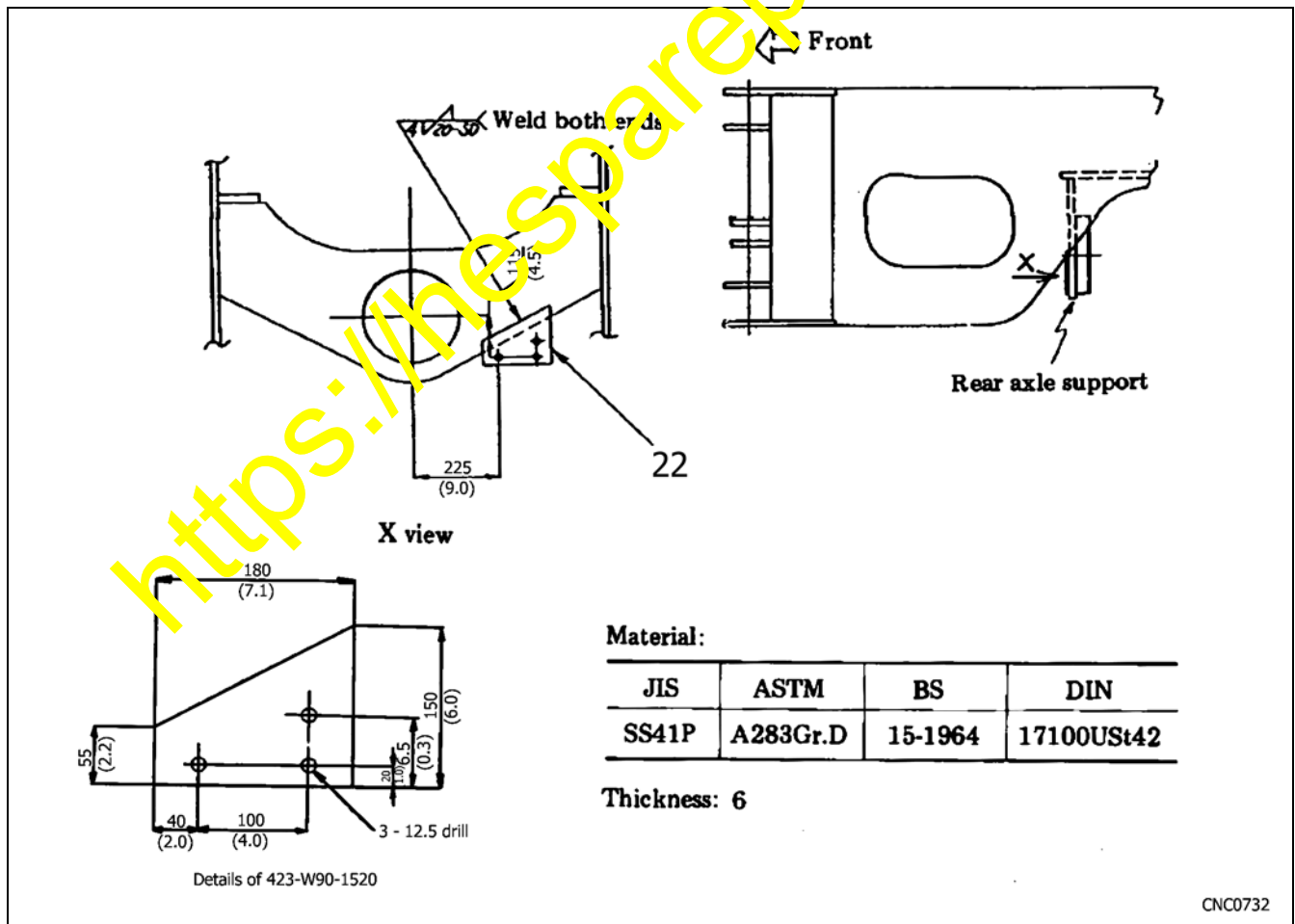
★ To modify the rear frame for the WA350/380/WF350

Weld bracket to rear frame left section as shown below. Bracket will be used for installing the air dryer.

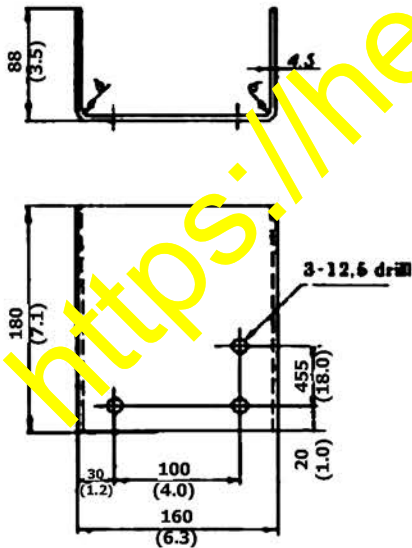
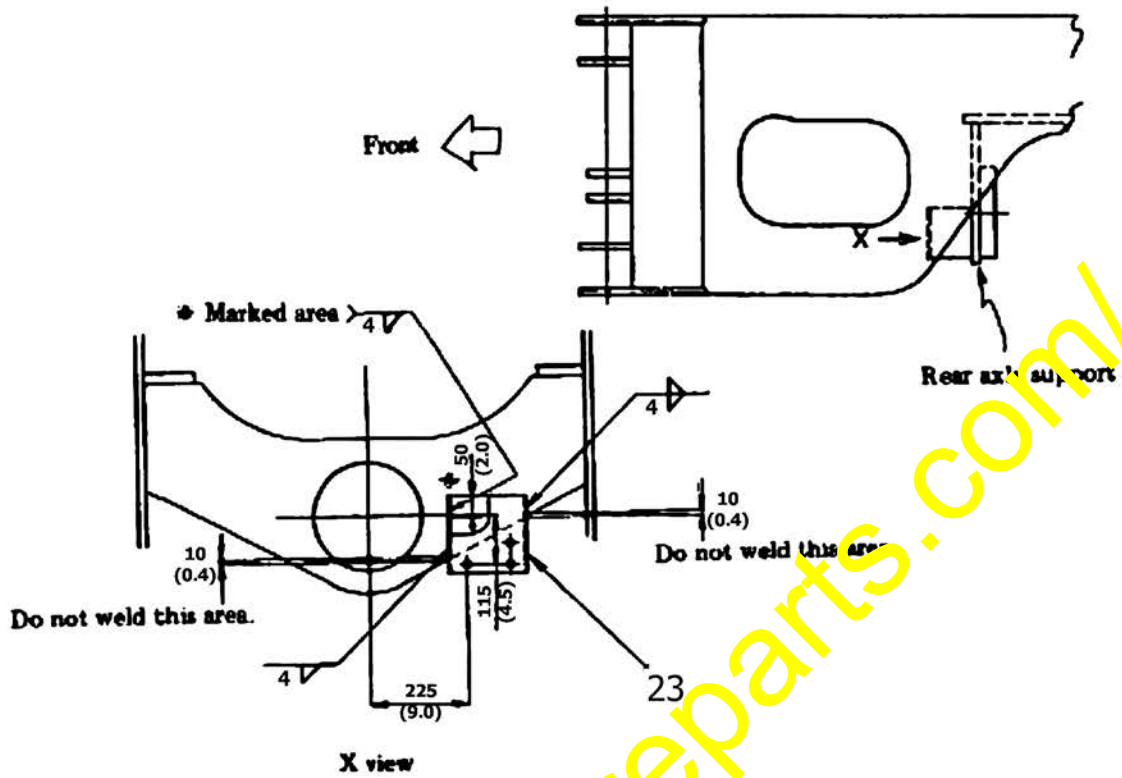
- Weld Requirements

Welding electrodes (soft steel) JIS Z3211	Preheating	Postheating	Peening
D4301 D4303 D4311 D4327 D4340	Not necessary	Not necessary	Not necessary

JIS	AWS	BS	DIN
D4301	--	E4343 Ar24	E433 Ar7
D4311	E6011	E433 C16	E4333 C4
D4327	E6027	E433 A34	E4343 B10



★ For the WA400/420



Details of 424-W90-1520

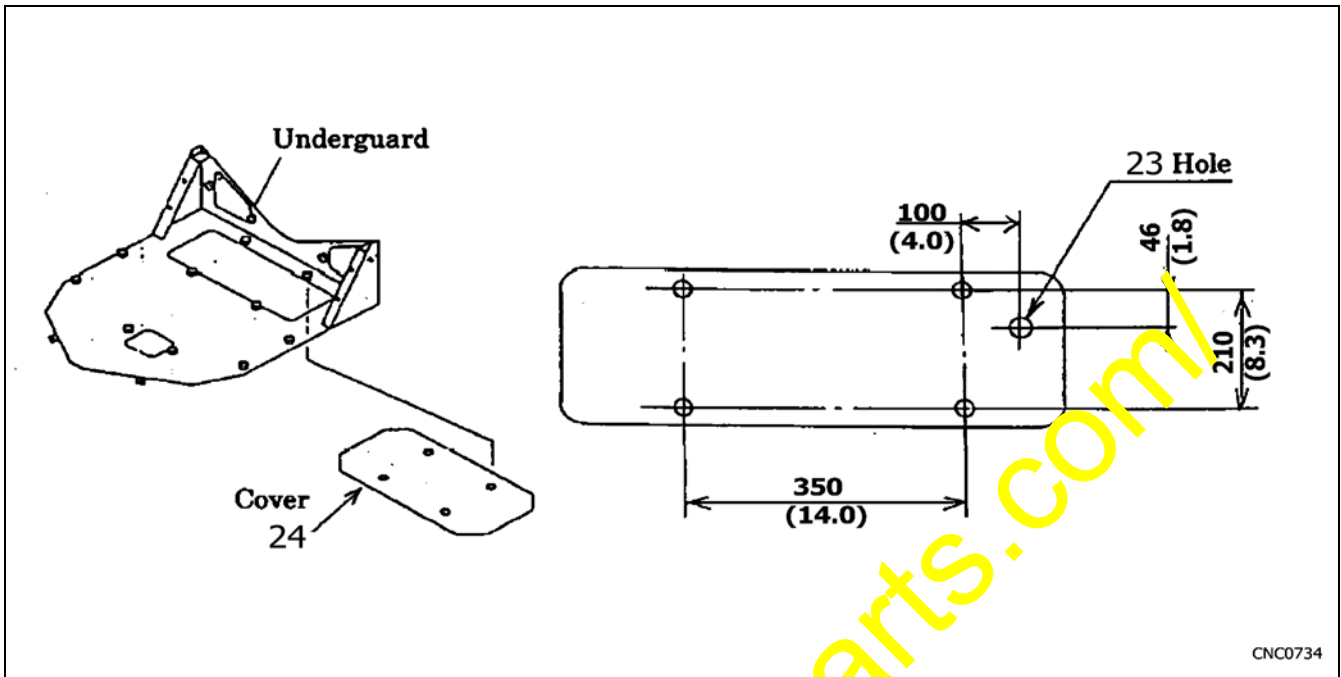
Material:

JIS	ASTM	BS	DIN
SS41P	A283Gr.D	15-1964	17100US42

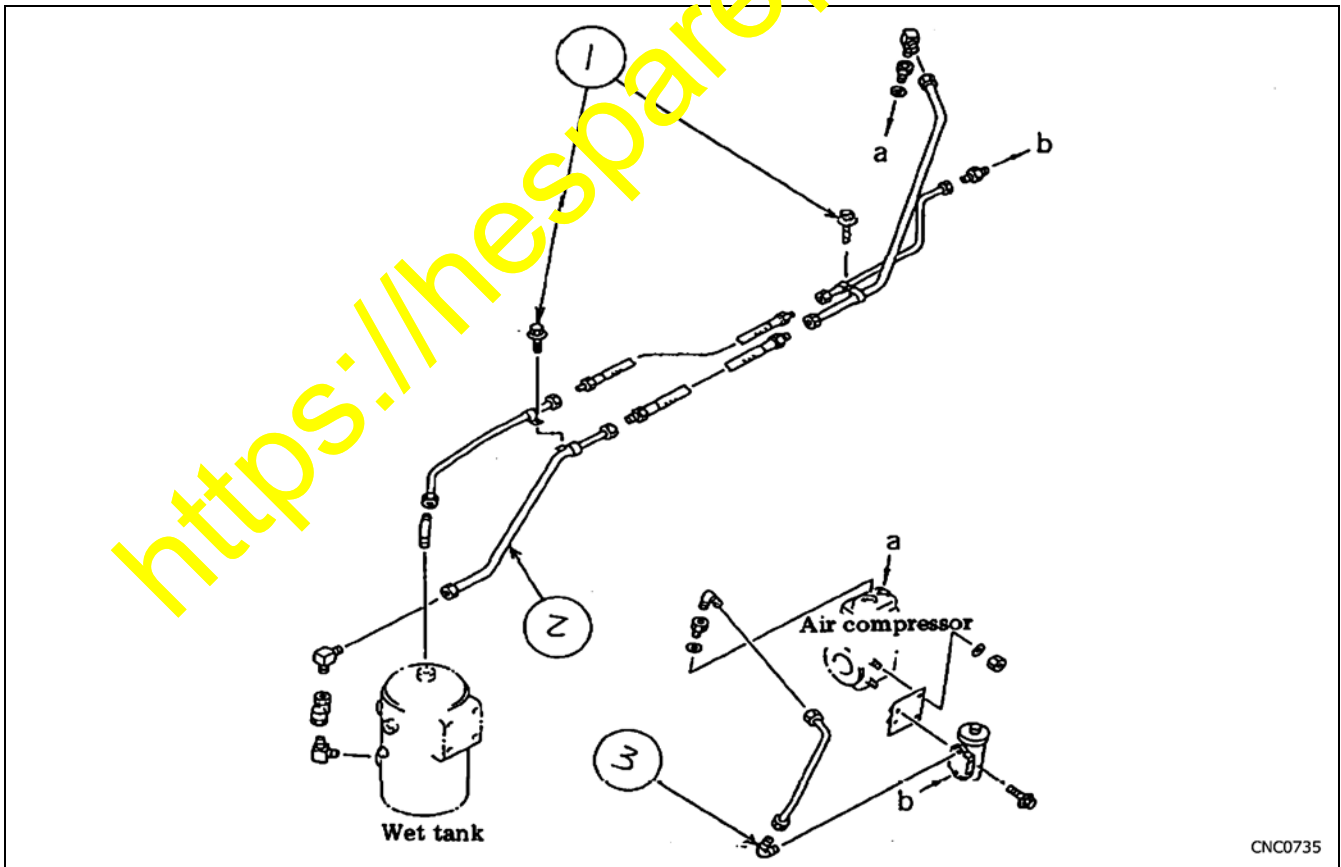
Thickness: 4.5

CNC0733

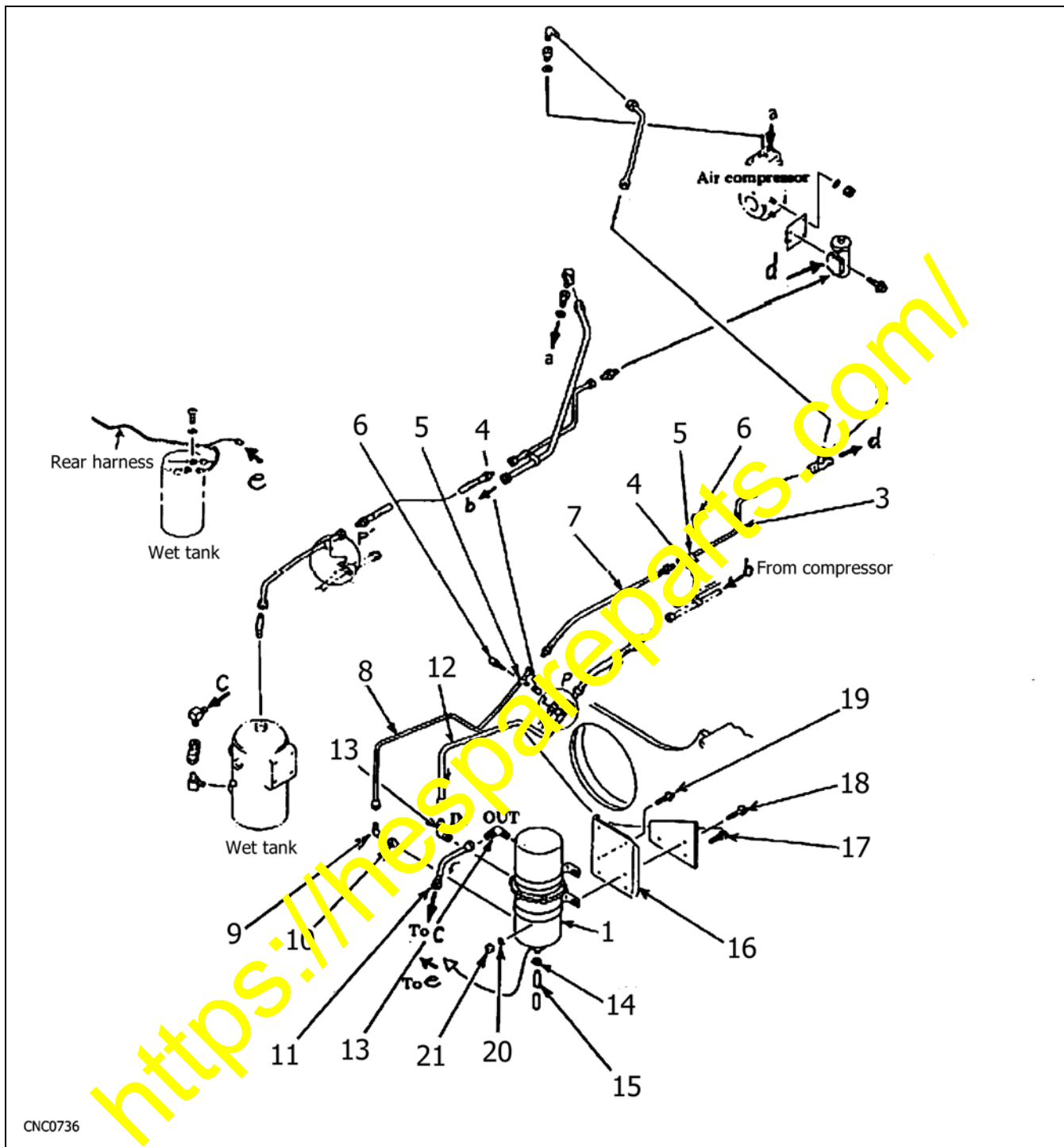
- Rework cover for WF350
- Rework hole (23) for air dryer drain hose on cover (24)



- Remove parts from unit. Part (1), (2) and (3)



★ Assemble Air Dryer



★ Checks After Installation

1. Start the engine and allow the system to charge with air.
2. When the compressor unloads check to see if the air dryer also discharges also. Be sure there is no leakage from the discharge port on the air dryer after discharge is completed.
3. Check to see if the compressor cycles normally when the air pressure is low.
4. Check the system for any leaks.