

INJECTION PUMP SPECIFICATION

2795

MODEL DBGFC43I-25AJ

SUPERSEDES MODEL DBGFC43I-2DH

CUSTOMER PART NO. AR70144

CUSTOMER'S NAME & ADDRESS:

John Deere Dubuque Tractor Works
Dubuque, Iowa

EDITION NO. 5

ENGINE 202D

APPLICATION (SEE NOTE 24f)

DATED 12-15-82

FULL LOAD RPM 2500

GOV. REGULATION 6% ISSUED BY: G. Dupont

NOTE: ALL SPEEDS ARE IN ENGINE RPM UNLESS OTHERWISE NOTED

TEST STAND

1. INJECTION LINES 3/32" I.D. BY 20" LONG
2. TEST OIL TEMPERATURE 110-115°F.
3. NOZZLE OPENING PRESSURE 2500 PSI 12SD12 NOZZLES.
4. CALIBRATING OIL (S.B.201)

PUMP OPERATING SPEED HALF ENGINE SPEED
ENGINE FUEL CONSUMPTION 24.5-25.5 #/Hr. at 2500 RPM

PUMP ACCESSORIES

1. Delivery Valve
2. Speed Advance
- 3.
- 4.

PUMP SETTINGS († ... ITEMS APPLY TO SERVICE ONLY)

1. ROLLER TO ROLLER DIMENSION 1.967 ± .0005
2. GOVERNOR LINKAGE GAP .125" TO .165"
(USE KIT NO. 23093 SB95/XL862)
- †3. OPERATE PUMP AT 1000 RPM WOT (WIDE OPEN THROTTLE)
FOR 10 MINUTES TO BRING TO OPERATING TEMPERATURE AND
CLEAR AIR FROM SYSTEM.
4. CHECK FOR MINIMUM 18" HG TRANSFER PUMP LIFT AT 400 RPM
IF EQUIPPED WITH THE BY PASS SYSTEM, PINCH BY PASS HOSE
5. ADJUST TRANSFER PUMP PRESSURE (WOT)
- †6. CHECK FOR MINIMUM CRANKING SPEED DELIVERY (SEE STEP 18)
7. AUTO ADVANCE SPEED RESPONSIVE
 - a. ADVANCE MOVEMENT 8° - 0° + 1°

RPM	CAM MOVEMENT
b. 500-900	1°
c. 2100-2300	7°
d. 2500	FULL ADVANCE

ON ENGINE:

AT FULL LOAD: SET 6° Advance at 1900 RPM

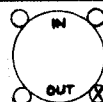
AT NO LOAD: SET 5° Advance at 1400 RPM

FULL ADVANCE BY 2400 RPM

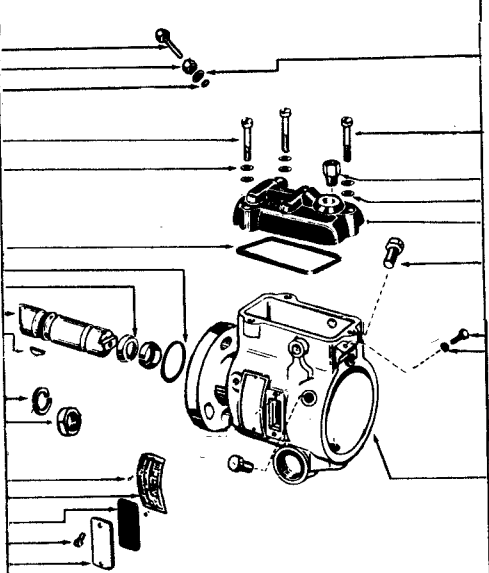
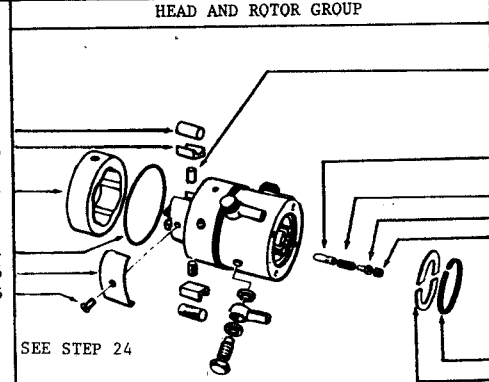
	RPM ±10	MM ³ PER STROKE	MAX. VAR. SET. CYL.	TRANS. PUMP PRESS. PSI
8. CHECK POINT	2500	48-50	3	83-86
9. CHECK POINT	1500	49-52	4	
10. CHECK POINT				
11. SET TORQUE SCREW				
12. CHECK SHUT-OFF	2500	3 MAX.		
13. HIGH IDLE (WOT)	2650	10-12	4	
14. GOVERNOR CUT-OFF (1/2 HI-IDLE DEL.)	2700	6 MAX.		
15. LOW IDLE	800	10-12	4	
16. TRANSFER PUMP PRESSURE (WOT)				
17. CHECK SHUT-OFF	400	3 MAX.		32-37 (WOT)
18. MINIMUM CRANKING SPEED DELIVERY	100	18		7 MIN.

NOTE: Return oil 200-500 cc/min at rated speed.

19. NAME PLATE LEFT SIDE VIEWING END PLATE
20. TIMED LEFT SIDE VIEWING END PLATE
21. TIMED TO CAM (For End of Injection)
22. GOVERNOR CONTROL COVER TO BE STAMPED VOLTS.
23. TIMED TO THIS CYLINDER (FROM END PLATE) - - - ⊗
24. SPECIAL NOTES:
 - a. Torque all Fasteners per XL784 or S.B.106
 - b. Pump to be tested with Fitting No. 15830 installed
 - c. Throttle Lever Assembly No. 12019 assembled RIGHT side viewing
End Plate
 - d. Install Throttle Lever Spacer No. 16135 and Arm No. 16136 in
B4-L position per XL528
 - e. Fuel Line Connector No. 11336, Washer No. 16225 and Connector
Screw No. 11346 purchased separately
 - f. JD450 CRAWLER - LANZ MD 440S (202D26Z Eng.) - 2020 and JD400
TRACTOR: JD440 SKIDDER - 2510 TRACTOR (WATERLOO)



25. SEALING WIRES: PART NO. 10408 3...REQUIRED
(REFERENCE DRAWING XL545 OR SERVICE BULLETIN 134R)
NOTE: HIGH IDLE SCREW TO BE SEALED BY JOHN DEERE INSPECTOR

FULL ADVANCE BY 2400 RPM			HOUSING & DRIVE GROUP		HEAD AND ROTOR GROUP		
DESCRIPTION	AMT. REQ.	PART NO.		PART NO.	AMT. REQ.	DESCRIPTION	
SCREW, low idle adjusting	1	15442		12337	1	WASHER, low idle adj. screw	
NUT, low idle adj. screw	1	12174					
SEAL, low idle screw	1	11588					
SCREW, cover hold down	2	22351		12202	1	SCREW, cover hold down	
LOCKWASHER, cover screw	3	11582		15830	1	CONNECTOR ASSY., return line	
				13521	3	WASHER, cover hold down screw	
				12153	1	COVER, governor control	
GASKET, governor cover	1	12054		11331	2	SCREW, head locking	
SEAL, pilot tube	1	16371					
SEAL, drive shaft	2	10453					
SHAFT, drive	1	10213					
KEY, drive shaft	1	10274		12259	1	SCREW, torq. screw hole plug	
BUTTON, thrust	1	16365		10464	1	WASHER, torq. screw hole plug	
SPRING, thrust button	1	10541					
WASHER, drive shaft	1	10534					
NUT, drive shaft	1	10529					
SCREW, name plate	2	10401	19730	1	HOUSING ASSEMBLY		
PLATE, name	1	10394					
GASKET, timing line cover	1	10574					
SCREW, timing line cover	2	10584					
COVER, timing line	1	10567					
HEAD AND ROTOR GROUP							
ROLLER, cam	2	11141		18781	1	HYD. HEAD & ROTOR ASSEMBLY*	
SHOE, cam roller	2	20116		11066	2	PLUNGER, rotor (basic) use 11067 thru 11070 (Standard) or 11072 thru 11075 (Oversize) as indicated on rotor S.B.60R	
CAM RING	1	10384		13827	1	VALVE, delivery S.B.143R or 13828 (Oversize) as Req'd.	
SEAL, hydraulic head	1	11304		13839	1	SPRING, delivery valve	
SPRING, leaf	1	11196		16440	1	STOP, delivery valve	
SCREW, leaf spring adjusting	1	11175		13837	1	SCREW, delivery valve	
CONNECTOR, fuel line				11437	1	WIRE, vent orl4565	
WASHER, fuel line connector				11438	2	SCREW, hydraulic head plug	
SCREW, fuel line connector				11439	1	WIRE, vent wire retainer	
				12216	1	SCREW, hydraulic head plug	
				11208	1	RING, rotor retainer	
				11212	2	RETAINER, rotor	
*UNIDENTIFIED ITEMS INCLUDED							

SEE STEP 24

*INDENTED ITEMS INCLUDED

DESCRIPTION	AMT. REQ.	PART NO.	TRANSFER PUMP GROUP	PART NO.	AMT. REQ.	DESCRIPTION
DBGFC431-25AJ				15228	1	PLUG ASSY., end plate adj.
FITTING, inlet	1	20299		17058	1	SLEEVE, end plate
				12406	1	SEAL, end plate sleeve
ROLLPIN, end plate loc.	1	11525		15225	1	ELEMENT, filter
SPRING, trans. pump blade	2	15699		15627	1	SEAL, element
BLADE, transfer pump	4	20511		11507	1	RING, sleeve seal
or 20512 per SB304				15701	1	SPRING, regulating
LINER, transfer pump	1	16753		11508	1	PISTON, regulating
				17056	1	SEAL, regulating piston
SEAL, transfer pump	1	11329		15877	1	PLATE, end
PLATE, thrust	1	15875		13521	4	WASHER, end plate screw
SEAL, end plate plug	1	12966		17506	4	SCREW, end plate
				11582	4	LOCKWASHER, end plate screw
				17451	1	PLUG, end plate
GOVERNOR GROUP						
SPRING, governor control	1	17997		12210	1	RETAINER, spring
ARM, governor	1	14482		11966	1	SPRING, idling
SHAFT, gov. arm pivot	1	12214		11969	1	GUIDE, idling spring
SEAL, pivot shaft	2	11588		22134	1	ARM ASSY., metering valve
NUT, pivot shaft retaining	2	12288		13556	1	WASHER, guide stud
SPACER, governor spring	1	15284		12208	1	STUD, guide
				11610	1	SHIM, metering valve
SLEEVE, governor thrust	1	21312		20849	1	VALVE, metering or 22250 SB336
or 14483				20359	1	SPRING, metering valve
WEIGHT, governor	6	11643		19531	1	RETAINER ASSY., gov. weight
				19528	1	RET. ASSY., gov. wt.(basic)
WASHER, gov. thrust sleeve	1	11620		23267	1	RETAINER, gov. weight
RING, gov. cage retaining	1	12285		18986	1	HUB ASSY., gov. weight
				17513	1	RING, flexible ret.
LINKAGE GROUP						
LEVER, throttle shaft	1	12221		13010	1	RETAINER, throttle lever sprg.
CLIP, shaft retaining	1	12253		15668	1	SCREW, throttle ret. spring
SEAL, throttle shaft	2	17438		13003	1	SPRING, throttle lever
WASHER, throttle shaft seal	2	14408		16392	1	LEVER ASSEMBLY, throttle
				16136	1	ARM, adjusting spacer
SHAFT, shut-off	1	16279		12051	1	SCREW, throttle lever position
				16135	1	SPACER, throttle lever adj.
				12169	1	SCREW, high idle adjusting
				12175	1	NUT, high idle adjusting
				12019	1	SHAFT ASSEMBLY, throttle
				12249	1	CAM, shut-off
				11901	1	HOOK ASSEMBLY, gov. linkage
				12360	1	SCREW, gov. link. hook. adj
				12362	1	WASHER, gov. link. hook adj
				11900	1	HOOK, governor linkage
				12358	1	LINK. ASSY., gov. link. adj
				11919	1	SPRING, governor linkage
AUTOMATIC ADVANCE GROUP						
*Assemble with Part No. towards piston hole plug				22655	1	PLUG, piston hole (power)
SEAL, piston ring	1	15750		18967	1	RING, piston
*PISTON, power	1	16241				
WASHER, slide	1	12622				
WASHER, slide	1	12622				
PISTON, spring	1	22182				
SPRING, outer advance	1	12695				
GUIDE, adv. adj. spring	1	14940				
SEAL, piston hole plug	2	12764				
SEAL, piston hole plug	2	20113				
PLUG, piston hole (spring)	1	14941				
SCREW, advance adj.	1	14544				
NUT, trimmer screw	1	13807				
CAP, adv. adj. screw	1	11611				
SEAL, adv. adj. screw	1	12040				

FOR SERVICE USE ONLY
APPLICABLE SERVICE ASSEMBLIES

GASKET KIT	#16369
PILOT TUBE REPLACEMENT	#16320
GOVERNOR WT. RETAINER ASSY.(S.B.180)	#17533
THROTTLE SHAFT BUSHING REPLACEMENT	#15093

FOR ENGINEERING USE ONLY

DATE	CHG. NO.	EDITION
6-20-73	11759	1
7-24-74	12032	2
3-14-80	13692	3
9-14-81	14316	4
12-15-82	15011	5