

**INJECTION PUMP
SPECIFICATION**

MODEL DB0431AJ3018

SUPERSEDES MODEL DBGFC431-58AJ

CUSTOMER PART NO. A148069

CUSTOMER'S NAME & ADDRESS:

J. I. Case Company

EDITION NO. 4
ENGINE 207
APPLICATION 580C TRACTOR
POWER SHUTTLE

DATED 6-1-83 3018
FULL LOAD RPM 2100 (60 HP)
GOV. REGULATION 9-10% ISSUED BY: J. McMahon

NOTE: ALL SPEEDS ARE IN ENGINE RPM UNLESS OTHERWISE NOTED

TEST STAND

1. INJECTION LINES (12SD12 NOZZLES) 3/32" I.D. BY 20" LONG (HOLDER BKB50SD & 0.5 MM PLATE) 1/16" I.D. BY 25" LONG
2. TEST OIL TEMPERATURE 110-115° F.
3. NOZZLE OPENING PRESSURE (12SD12 NOZZLES) 2500 PSI (HOLDER BKB50SD & 0.5 MM PLATE) 3000 PSI
4. CALIBRATING OIL (S.B.201)

PUMP OPERATING SPEED... HALF ENGINE SPEED
ENGINE FUEL CONSUMPTION.....

PUMP ACCESSORIES

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

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

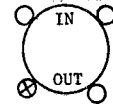
1. ROLLER TO ROLLER DIMENSION .1965 ±.0015"
2. GOVERNOR LINKAGE GAP .125" TO .165" (USE KIT NO. 23093 SB95/XL862)
13. OPERATE PUMP AT 1000 RPM WOT (WIDE OPEN THROTTLE) FOR 10 MINUTES TO BRING TO OPERATING TEMPERATURE AND CLEAR AIR FROM SYSTEM.
4. CHECK FOR MINIMUM 18" HG TRANSFER PUMP LIFT AT 400 RPM
5. ADJUST TRANSFER PUMP PRESSURE (WOT) NOTE: 1 to 3 PSI SUPPLY PRESSURE REQUIRED AT PUMP INLET.
16. CHECK FOR MINIMUM CRANKING SPEED DELIVERY (SEE STEP 18)
7. AUTO ADVANCE SPEED RESPONSIVE
 - a. ADVANCE MOVEMENT 4° - 0° + 1°

RPM	SAE	CAM MOVEMENT	12SD12
b.	1250-1450	1°	1250-1450
c.			
d.	1700-1900	FULL ADV.	1700-1900

RPM ±10	MM ³ PER STROKE		MAX. VAR. BET. CYL.	TRANS. PUMP PRESS. PSI
	117017	S.A.E.		
2100				67-71
1400	61±1.5	64±1.5	3	
2100	58-60	57-59	4	67-71 HOLD
2100	3 MAX	3 MAX		
2300	11-14	11-14	3	
2350	5 MAX	5 MAX		
750	10-13	10-13	3	
500	3 MAX	3 MAX		
150	20 Min.	15 Min.		10 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. Fuel Line Connector No. 11336 to be purchased separately
- c. Assemble Adjustable Shut-off Arm Assembly No. 12295 in R4-L position per B/P XL400 or S.B.164
- d. Pump to be tested with No. 15830 Connector Assembly installed
- e. Set S.O. Adj. Screws per XL869. (In plant use only)

NOTE: PUMP MOUNTING Horizontal PUMP ROTATION Counter-clockwise

25. SEALING WIRES: PART NO. 10408 4 ... REQUIRED (REFERENCE DRAWING XL545 OR SERVICE BULLETIN 134R)

DESCRIPTION	AMT. REQ.	PART NO.	HOUSING & DRIVE GROUP	PART NO.	AMT. REQ.	DESCRIPTION	
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	
				12151	1	COVER, governor control	
GASKET, governor cover	1	12054		11331	2	SCREW, head locking	
SEAL, pilot tube	1	10519					
SEAL, drive shaft	2	10453					
SHAFT ASSEMBLY, drive	1	20287					
ROLLPIN, drive shaft	1	19921		11611	1	CAP, torque screw	
BUTTON, thrust	1	20269		13807	1	NUT, torque screw	
SPRING, thrust button	1	10541		12040	1	SEAL, torque screw	
WASHER, drive shaft	1	10534		14675	1	SCREW, torque	
NUT, drive shaft	1	10529					
SCREW, name plate or 10401	2	24419		SB165	14846	1	HOUSING ASSEMBLY
PLATE, name	1	10394					
GASKET, timing line cover	2	10574					
SCREW, timing line cover	4	10584					
COVER, timing line	2	10567					
HEAD AND ROTOR GROUP							
				20387	1	HYD. HEAD & ROTOR ASSEMBLY*	
				11066	2	PLUNGER, rotor (basic)	
							use 11067 thru 11070 (Standard) or 11071 thru 11075 (Oversize) as indicated on rotor S.B.60R
ROLLER, cam	2	11141		13819	1	VALVE, delivery S.B.143R or 13820 (Oversize) as Req'd.	
SHOE, cam roller	2	20116					
CAM RING	1	10373		13839	1	SPRING, delivery valve	
				16440	1	STOP, delivery valve	
				13837	1	SCREW, delivery valve	
				11437	1	WIRE, vent	
				14565	1	(Oversize) (BLK)	
				11438	2	SCREW, hydraulic head plug	
				11439	1	WIRE, vent wire retainer	
				12216	1	SCREW, hydraulic head plug	
				11208	1	RING, rotor retainer	
				11212	2	RETAINER, rotor	
CONNECTOR, fuel line						*INDENTED ITEMS INCLUDED	
WASHER, fuel line conn.	8	16225					
SCREW, fuel line conn.	4	11346					

DESCRIPTION	AMT. REQ.	PART NO.	TRANSFER PUMP GROUP	PART NO.	AMT. REQ.	DESCRIPTION
DB0431AJ3018				15228	1	PLUG ASSY., end plate adj.
				17058	1	SLEEVE, end plate
				12406	1	SEAL, end plate sleeve
				15225	1	ELEMENT, filter
				15627	1	SEAL, element
				11507	1	RING, sleeve seal
				15701	1	SPRING, regulating
				11508	1	PISTON, regulating
				17056	1	SEAL, regulating piston
				15877	1	PLATE, end
				13521	4	WASHER, end plate screw
				17506	4	SCREW, end plate
				11582	4	LOCKWASHER, end plate screw
				17451	1	PLUG, end plate

DESCRIPTION	AMT. REQ.	PART NO.	GOVERNOR GROUP	PART NO.	AMT. REQ.	DESCRIPTION
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		13556	1	WASHER, guide stud
NUT, pivot shaft ret.	2	12288		12208	1	STUD, guide
				11610	1	SHIM, metering valve
ARM ASSY., metering valve	1	22134		20849	1	VALVE, metering or 22250 SB336
SLEEVE, governor thrust	1	21312		20359	1	SPRING, metering valve
WEIGHT, governor	6	11643		19603	1	RETAINER ASSY., gov. weight
				19528	1	RET. ASSY., gov. wt. (Basic)
				23267	1	RETAINER, gov. weight
				18986	1	HUB ASSY., gov. weight
				22935	1	RING, flexible ret.

DESCRIPTION	AMT. REQ.	PART NO.	LINKAGE GROUP	PART NO.	AMT. REQ.	DESCRIPTION
NUT, s.o. arm adj. screw	1	12174		12051	1	SCREW, adj. shut-off pos.
SCREW, shut-off arm adjusting	1	12165		12998	1	SCREW, adj. shut-off ret.
LEVER, throttle shaft	1	12221		11582	1	WASHER, adj. s.o. ret. screw
SPACER, throttle shaft lever	1	12312		12049	1	WASHER, adj. s.o. pos. screw
SEAL, throttle shaft	2	17438		12295	1	ARM ASSY., adj. shut-off
WASHER, throttle shaft seal	2	14408		14425	1	SCREW, stop lever fitting
SHAFT ASSEMBLY, throttle	1	12012		12165	1	SCREW, shut-off arm adj.
NUT, low idle adj. screw	1	12174		12174	1	NUT, s.o. arm adj. screw
SCREW, low idle adj.	1	12972		12237	1	SHAFT ASSEMBLY, shut-off
				12249	1	CAM, shut-off
LEVER ASSEMBLY, throttle	1	12946		11901	1	HOOK ASSEMBLY, gov. linkage
SPRING, throttle lever	1	13003		12360	1	SCREW, gov. link. hook. adj
SCREW, throttle lever spring	1	12879		12362	1	WASHER, gov. link. hook adj
RETAINER, throttle lever spr.	1	13010		11900	1	HOOK, governor linkage
NUT, high idle adj.	1	12174		12358	1	LINK. ASSY., gov. link. adj
SCREW, high idle adj.	1	12169	11919	1	SPRING, governor linkage	

DESCRIPTION	AMT. REQ.	PART NO.	AUTOMATIC ADVANCE GROUP	PART NO.	AMT. REQ.	DESCRIPTION
SPRING, inner advance	1	14258		12640	1	PLUG, piston hole (Spring)
PISTON, spring	1	22124		20113	1	SEAL, piston hole plug
WASHER, slide	2	12622		12764	1	SEAL, piston hole plug
*ASSEMBLY WITH PART NO. TOWARDS PISTON HOLE PLUG				14259	1	SPRING, outer advance
*PISTON, power	1	16241		12741	as	SHIM, advance spring
SEAL, piston ring	1	15750		12743	Req'd	
RING, piston	1	18967		12745		
SEAL, piston hole plug	1	20113				
PLUG, piston hole (POWER)	1	22655				
SEAL, piston hole plug	1	12764				

FOR SERVICE USE ONLY		
APPLICABLE SERVICE ASSEMBLIES		
GASKET KIT	#24371	
PILOT TUBE REPLACEMENT	#16320	
Throttle Shaft Bushing replacement	15093	

FOR ENGINEERING USE ONLY		
DATE	CHG. NO.	EDITION
04-03-79	13293	1
6-20-80	13823	2
11-30-81	14414	3
6-1-83	15452	4