



# INJECTION PUMP SPECIFICATION

2767

CATALOG PAGE NO: 500-4298

MODEL DBGFC637-7JN

SUPERSEDES MODEL DBGFC637-3JN

CUSTOMER PART NO. 4006626

CUSTOMER'S NAME & ADDRESS:

Allis Chalmers Corp.  
Engine Div.  
Harvey, Illinois

EDITION NO. 2

DATED 9-24-74

ENGINE 2900 MK-1

FULL LOAD RPM 2200

APPLICATION FARM TRACTOR  
Model 200

GOV. REGULATION 7-10 % 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**

**PUMP ACCESSORIES**

1. Delivery Valve
2. Speed Advance
3. Push-pull Trimmer
- 4.

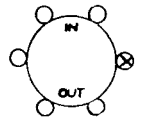
**PUMP SETTINGS ( + ... ITEMS APPLY TO SERVICE ONLY)**

1. ROLLER TO ROLLER DIMENSION .1.9655 ±.0015"
2. GOVERNOR LINKAGE GAP ..... .125" TO .165"  
(USE GAGE NO.18914)
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°

RPM	CAM MOVEMENT
b. 1400-1500	SET 6°
c. 600-900	1°
d. By 1900	8°

RPM ±10	MM PER STROKE	MAX. VAR. BET. CYL.	TRANS. PUMP PRESS.-PSI
2200			65-70
1600	80-83	4	
2200	70-72	6	65-70 Hold
2400	12-16	4	
2450	7 Max.		
600	10-14	4	
150	48		8 Min.

19. NAME PLATE, RIGHT SIDE VIEWING END PLATE
20. TIMED ..... RIGHT SIDE VIEWING END PLATE
21. TIMED TO CAM (for Beginning of Injection)
22. GOVERNOR CONTROL COVER TO BE STAMPED ..... VOLTS.
23. TIMED TO THIS CYLINDER (FROM END PLATE) --- ⊗



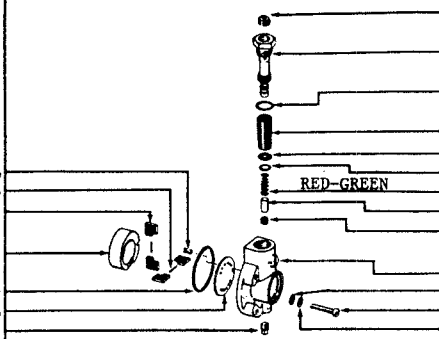
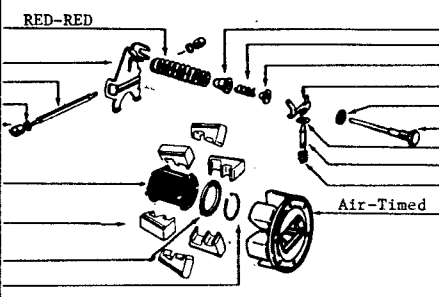
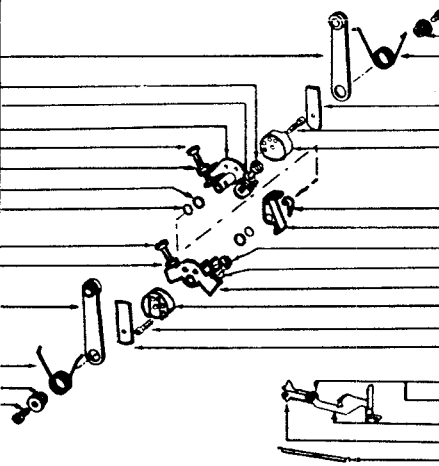
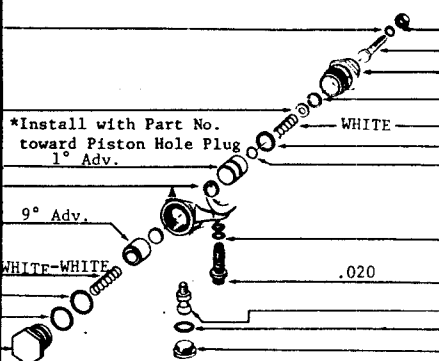
**24. SPECIAL NOTES:**

- a. Torque all Fasteners per XL713 or S.B.106
- b. Pump to be Air-timed prior to shipment
- c. Fuel Line Connector No.11344 (6Req'd) Purchased separately
- d. Assemble Adj. Throttle Lever Spacer and Arm in B4-Position and Shut-off Lever Spacer and Arm in A1-L position per XL528
- e. Upon completion of Bench Test re-check Transfer Pump Pressure and Advance Movement. Re-set if necessary.
- f. Pump to be tested with Fitting No.17356 installed.
- g. When replacing DBGFC637-3JN Static Timing should be changed to 18° BTDC

25. SEALING WIRES: PART NO. 10408 5...REQUIRED  
(REFERENCE DRAWING XL545 OR SERVICE BULLETIN 134R)  
NOTE: Seal High Idle screw to Lever

DESCRIPTION	AMT. REQ.	PART NO.	HOUSING & DRIVE GROUP	PART NO.	AMT. REQ.	DESCRIPTION
SCREW, cover hold down	3	12202		17356	1	CONNECTOR ASSY., return line
LOCKWASHER, cover screw	3	11582		13521	3	WASHER, cover hold down screw
				12151	1	COVER, governor control
GASKET, governor cover	1	12054		11332	2	SCREW, head locking
SEAL, pilot tube	1	10519				
SEAL, drive shaft	2	10453				
SHAFT ASSEMBLY, drive	1	20287				
ROLLPIN, drive shaft	1	19921				
BUTTON, thrust	1	17413		11611	1	CAP, torque screw
SPRING, thrust button	1	10541		13807	1	NUT, torque screw
WASHER, drive shaft	1	10534		12040	1	SEAL, torque screw
NUT, drive shaft	1	10529		14675	1	SCREW, torque
WASHER, torq. screw hole	1	10464				
SCREW, torq. scr. hole plug	1	12259				
SCREW, name plate	2	10401		14846	1	HOUSING ASSEMBLY
PLATE, name	1	10394	15093	2	BUSHING, throttle shaft	
GASKET, timing line cover	2	10574				
SCREW, timing line cover	4	10584				
COVER, timing line	2	10567				
			<b>HEAD AND ROTOR GROUP</b>			
				16446	1	HYD. HEAD & ROTOR ASSEMBLY*
				11101	2	PLUNGER, rotor (basic)
ROLLER, cam	2	11141				use 11102 thru 11105 (Standard)
SHOE, cam roller	2	20116				or 11107 thru 11110 (Oversize)
				13827	1	as indicated on rotor S.B.60R
CAM RING	1	18785				VALVE, delivery S.B.143R
				13839	1	or 13828 (Oversize) as Req'd.
				16440	1	SPRING, delivery valve
SEAL, hydraulic head	1	11304		13837	1	STOP, delivery valve
SPRING, leaf	1	11196		11437	1	SCREW, delivery valve
SCREW, leaf spring adj.	1	11175		11438	2	WIRE, vent
				11439	1	SCREW, hydraulic head plug
				12216	1	WIRE, vent wire retainer
						SCREW, hydraulic head plug
SCREW, fuel line conn	6	11346		11208	1	RING, rotor retainer
				11212	2	RETAINER, rotor

\*INDENTED ITEMS INCLUDED

DESCRIPTION	AMT. REQ.	PART NO.	TRANSFER PUMP GROUP	PART NO.	AMT. REQ.	DESCRIPTION
DBGFC 637-7JN				15228	1	PLUG ASSY., end plate adj.
				19885	1	SLEEVE, end plate
				12406	1	SEAL, end plate sleeve
				13225	1	ELEMENT, filter
				15627	1	SEAL, element
				11507	1	RING, sleeve seal
ROLLPIN, end plate loc.	1	11525		15701	1	SPRING, regulating
SPRING, trans. pump blade	2	15699		11508	1	PISTON, regulating
BLADE, transfer pump (Basic)	4	18137		17056	1	SEAL, regulating piston
Use 20511 or 20512 as req'd.						
LINER, transfer pump	1	16753		15877	1	PLATE, end
SEAL, transfer pump	1	11329		13521	4	WASHER, end plate screw
PLATE, thrust	1	15875		17506	4	SCREW, end plate
PLUG, end plate pipe	1	15821		11582	4	LOCKWASHER, end plate screw
<b>GOVERNOR GROUP</b>						
SPRING, governor control	1	11994		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		14680	1	ARM ASSY., metering valve
NUT, pivot shaft ret.	2	12288		13556	1	WASHER, guide stud
				12208	1	STUD, guide
SLEEVE, governor thrust	1	14483		11610	1	SHIM, metering valve
WEIGHT, governor	6	11658		18808	1	VALVE, metering
WASHER, gov. thrust sleeve	1	11620		20359	1	SPRING, metering valve
RING, gov. cage retaining	1	12285		19528	1	RETAINER ASSY., gov. weight
				19527	1	RETAINER, gov. weight
				18986	1	HUB ASSY., gov. weight
				17513	1	RING, flexible ret.
<b>LINKAGE GROUP</b>						
LEVER ASSEMBLY, shut-off	1	15026		16137	1	SCREW, s.o. lever spring
SCREW, shut-off arm adjusting	1	12165		13010	1	RETAINER, s.o. lever spring
NUT, shut-off arm adj. screw	1	12174		13003	1	SPRING, s.o. lever
SHAFT ASSEMBLY, shut-off	1	16247		16136	1	ARM, adjusting spacer
SCREW, shut-off arm adjusting	1	12165		12051	1	SCREW, s.o. lever positioning
NUT, shut-off arm adj. screw	1	12174		16135	1	SPACER, s.o. lever adjusting
WASHER, shaft seal	2	14408				
SEAL, shaft	2	12040		12249	1	CAM, shut-off
SCREW, low idle adjusting	1	12167		12221	1	LEVER, throttle shaft
NUT, low idle adj. screw	1	12174		16769	1	SCREW, high idle adjusting
LEVER ASSEMBLY, throttle	1	15026		16770	1	NUT, high idle adj. screw
SPRING, throttle lever	1	13003		12019	1	SHAFT ASSEMBLY, throttle
RETAINER, throttle lever spring	1	13010		16135	1	SPACER, throttle lever adj.
SCREW, throttle lever spring	1	16137		12051	1	SCREW, throttle lever pos.
				16136	1	ARM, adjusting spacer
				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
<b>AUTOMATIC ADVANCE GROUP</b>						
SEAL, adv. adj. screw	1	12040		11611	1	CAP, advance adj. screw
WASHER, advance spring	1	17634		13807	1	NUT, trimmer screw
PISTON, power	1	17636		17633	1	SCREW, advance adjusting
WASHER, slide	2	12622		18973	1	PLUG, piston hole power
PISTON, spring	1	12758		17635	1	RING, Adv. spring retaining
SPRING, advance	1	12631		14259	1	SPRING, advance trimmer
SEAL, piston hole plug	2	12764		18967	1	RING, advance power piston
SEAL, piston hole plug	2	20113		15750	1	SEAL, adv. piston ring
PLUG, piston hole (Spring)	1	12640		11507	2	SEAL, head loc. screw
				18547	1	SCREW ASS'Y., head locating
				15438	1	SCREW, cam advance
				12766	1	SEAL, adv. screw hole plug
				12765	1	PLUG, adv. screw hole

FOR SERVICE USE ONLY  
APPLICABLE SERVICE ASSEMBLIES

GASKET KIT # 16369  
PILOT TUBE REPLACEMENT # 16320

DATE

10-12-73  
9-24-74

FOR ENGINEERING USE ONLY  
CHG. NO. EDITION

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