

MARVEL-SCHEBLER PRODUCTS DIVISION
BORG-WARNER CORPORATION

MAIN OFFICE AND FACTORY
DECATUR, ILLINOIS, U. S. A.

February 13, 1964

SERVICE BULLETIN

#1-64

TO: ALL MANUAL HOLDERS

SUBJECT: MODEL "A" FORD

You may get a call now and then for a carbureter for Model "A" Fords.

The tools to produce this unit no longer exist in our plant.

However, you can easily adapt one of our Universal TSXU models for those who do not demand an original carbureter on their "Classic".

Model #TSXU-833 is a perfect calibration; it has a power needle and with a bowden wire choke, you're in business.

MARVEL-SCHEBLER PRODUCTS DIVISION


R. T. Massey
Service Sales Manager

mr

Any hard working engine will get hot. No matter how efficient the cooling system, the combustion area can get hot enough to ignite the fuel without ignition. In a gasoline engine this is known as "dieseling".

"Dieseling" is untimed self ignition.

A considerable amount of engine damage can result from improper timing, tremendous pressure develops when the gas ignites on the compression stroke, with excessive bearing and crankshaft loads, reverse running, etc.

With this new device your hot engine will stop when the key is turned off.

This new electric solenoid power adjusting needle will stop your engine instantly by shutting off all fuel to both nozzle and idle system. The needle returns to its original setting when key is on.

APPLICATION LISTING

12 VOLT ONLY

LIST PRICE FOR ALL UNITS — \$14.30

Carbureter Model	Solenoid #
Marvel-Schebler TSX- $\frac{7}{8}$ "	43-746
Marvel-Schebler TSX-1"	43-747
Marvel-Schebler TSX-1 $\frac{1}{4}$ "	43-735
Zenith Size $\frac{7}{8}$ "	43-755
Zenith Size 1"	43-756
Zenith Size 1 $\frac{1}{4}$ "	43-771
International Harvester 381420R91	43-750
Wisconsin Motors (Zenith 87-A8)	43-752

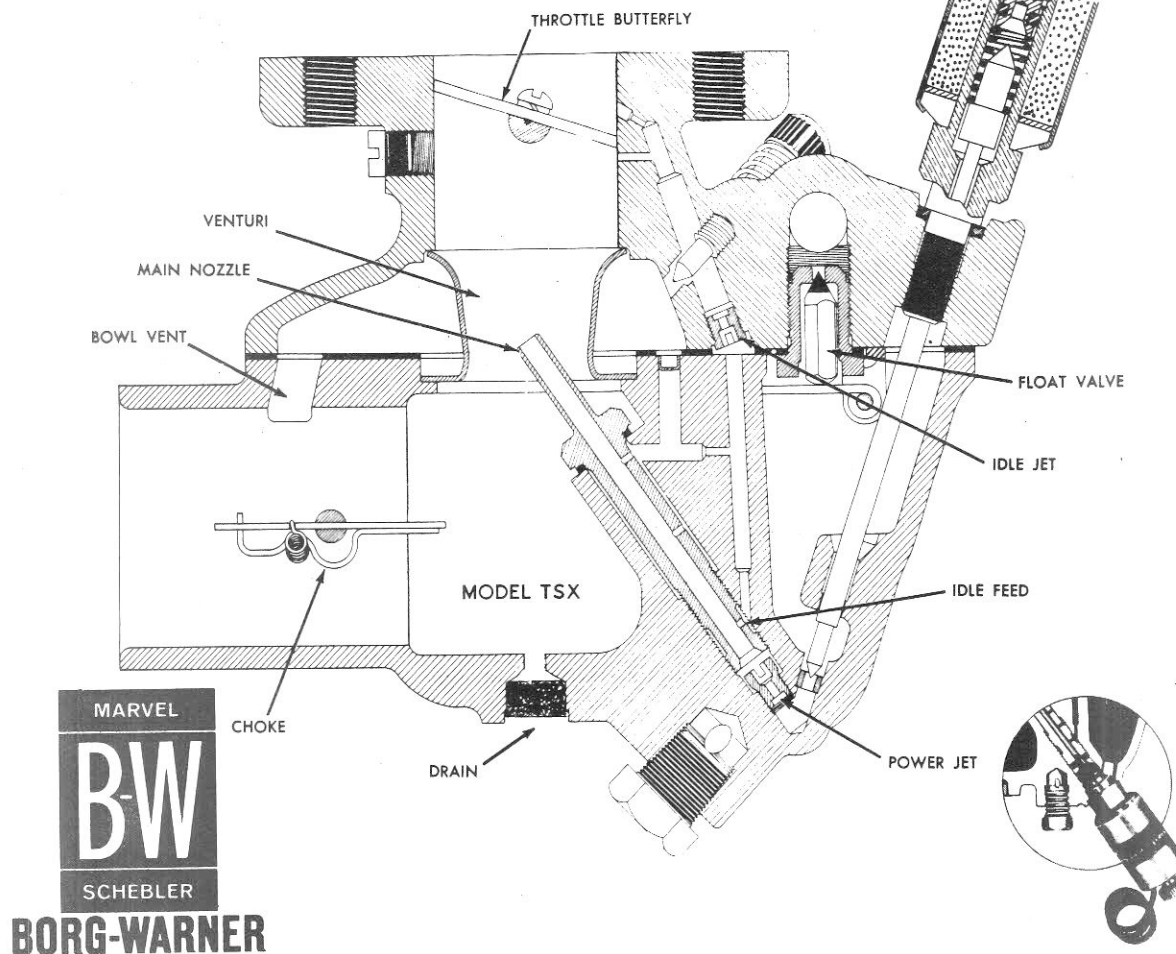
Installation Instructions on Reverse Side

MARVEL - SCHEBLER
DIV. BORG-WARNER CORP.
DECATUR, ILLINOIS 62525



BORG-WARNER

ANTI-DIESELING SOLENOID



INSTALLATION INSTRUCTIONS FOR ANTI-DIESELING POWER ADJUSTING NEEDLES

All tractor and industrial engine carbureters have provision for, or are equipped with power adjusting needles.

Simply remove the standard power needle (or plug, in case the unit has no needle) and install the solenoid needle in its place, using the gasket supplied.

The Marvel-Schebler Model TSX- $\frac{7}{8}$ " and $1\frac{1}{4}$ " carbureters without needles, have a Welch plug in the needle channel. This plug can be removed with a sharp punch.

Tighten the solenoid in securely and connect the lead to the ignition switch side of the coil, or coil side of the switch, whichever is most convenient.

A preliminary setting should be made of 2-3 turns from needle seat, with final setting under load in accordance with your engine manual.

MARVEL-SCHEBLER



TUNE UP KITS

Dealer Assortment
#666-672 LIST \$30.10

ASSORTMENT CONTAINS

<u>PART NO.</u>	<u>QTY</u>	<u>PART NO.</u>	<u>QTY</u>
666-661	2	666-665	1
666-662	2	666-666	1
666-663	1	666-670	1
666-664	2	666-671	1

8 KITS SERVICE 578 CARBURETERS



BORG-WARNER

MS - 387

TEMPORARY PARTS LIST

MARVEL-SCHEBLER PRODUCTS DIVISION

BORG-WARNER CORPORATION
DECATUR, ILLINOIS, U.S.A.

PARTS LIST

ORIGINAL DATE RELEASED 3-6-63
DATE RETYPED 2-10-64

CUSTOMER John Deere Waterloo AR32636R PART NO. 10-4592 LATEST CHANGE NO. _____
 MOD. NO. 4020 Tractor MODEL USX-30 SIZE _____
 BORE & STROKE _____ NO. CYL. _____ SUPERSEDES _____ SUPERSEDED BY _____

CND. NO.	PART NO.	QUAN. RECD.	PART NAME
	10-4622	1	Carbureter Body Assembly
	13-1382	1	Throttle Shaft Assembly
	14-244	1	Throttle Fly (1-11/16 Dia.)
	15-42	1	Screw (#8-32 x 3/4) Fill. Hd. (Throttle Stop)
	15-285	1	Screw (#8-32 x 5/16) Slotted Hex Hd. (Choke Swivel)
	15-483	2	Screw (#6-32 x 1/4) SEMS Pan Head (Choke Fly)
	15-B52	2	Screw (#5-40 x 3/8) Fill. Hd. Self Tapping (Float Bracket)
	15-A93-	2	Screw (#8-32 x 3/8) SEMS Pan Head (Choke Bracket)
	15-A211	2	Screw (#8-32 x 1/4) SEMS Pan Head (Throttle Fly)
	15-A213	10	Screw (#8-32 x 1/2) SEMS Fill. Hd. (Bowl Cover-7) (Pump Cover-3)
	15-A295	1	Screw (#8-32 x 1/2) SEMS Slotted Hex Hd. (Choke Clip)
	15-A390	1	Screw (#1/4-40 x 1/4) Drill Plug (Bowl Drain)
	15-A493	1	Screw (#0 x 3/16) Round Head (Pump Housing)
	16-4	1	Gasket - Nozzle Plug
	16-14	1	Gasket - Strainer
	16-A316	1	Gasket -Bowl Cover
	16-A451	1	Gasket - Nozzle-1
	16-29	2	Gasket - Float Valve Seat - 1 Diaphragm Pump Assembly-1
	16-704	1	Gasket Assortment
	24-262	1	Spring - Throttle Stop Screw
	24-A223	1	Spring - Pump Diaphragm
	24-A437	1	Spring - Choke Return
	25-664	1	Choke Lever Assembly
	26-872	1	Choke Shaft Assembly
	27-241	1	Fly - Choke
	28-110	1	Swivel - Choke
	29-81	1	Clip - Choke Bracket
	29-104	1	Bracket - Choke
	29-569	1	Bracket Assembly
	30-747	1	Float & Lever Assembly
	32-16	1	Float Shaft - 1
	36-399	1	Seat - Power Needle
	43-720	1	Main Adjusting Needle Assembly
	43-734	1	Idle Adjusting Screw (Nylok)
	44-63	1	Packing - Choke
	44-127	1	Packing - O-Ring (1/16 x 3/16 I.D. x 5/16 O.D.)
	44-142	1	Packing - Throttle
	47-471	1	Nozzle
	49-A23	1	Jet - Economizer
	49-480	1	Jet - Minimum Fuel Restriction
	49-420	1	Jet - Idle Fuel
	49-533	1	Jet - Pump Discharge Jet Assembly
	55-230	1	Choke Shaft Cup
	55-255	1	Retainer - Throttle Shaft Packing
	56-563	1	Bowl - Cover
	62-167	1	Pin - Throttle Stop
	62-433	1	Pin - Choke Shaft

MARVEL-SCHEBLER PRODUCTS DIVISION
 BORG-WARNER CORPORATION
 DECATUR, ILLINOIS, U.S.A.

TEMPORARY
PARTS LIST

ORIGINAL DATE RELEASED 3-6-63
 DATE RETYPED 2-10-64

CUSTOMER John Deere - Waterloo AR32639R PART NO. 10-4596 LATEST CHANGE NO.
 MOD. NO. 3020 Tractor MODEL USX-31 SIZE
 YEAR BORE & STROKE NO. CYL. SUPERSEDES SUPERSEDED BY

CHG. NO.	PART NO.	QUAN. REQD.	PART NAME	DWG. SIZE
	10-4678	1	Carbureter Body Assembly	
	13-1286	1	Throttle Shaft Assembly	
	14-244	1	Throttle Fly (1-11/16 Dia.)	
	15-42	1	Screw (#8-32 x 3/4) Fillister Hd. (Throttle Stop)	
	15-285	1	Screw (#8-32 x 5/16) Slotted Hex Hd. (Choke Swivel)	
	15-483	2	Screw (#6-32 x 1/4) SEMS Pan Head (Choke Fly)	
	15-B52	2	Screw (#5-40 x 3/8) Fill. Hd. Self Tapping (Float Bracket)	
	15-A93	2	Screw (#8-32 x 3/8) SEMS Pan Head (Choke Bracket)	
	15-A211	2	Screw (#8-32 x 1/4) SEMS Pan Head (Throttle Fly)	
	15-A213	10	Screw (#8-32 x 1/2) SEMS Fillister Hd. (Bowl Cover-7) (Pump Cover-3)	
	15-A295	1	Screw (#8-32 x 1/2) SEMS Slotted Hex Hd. (Choke Clip)	
	15-A390	1	Screw (#4-40 x 1/4) Drill Plug (Bowl Drain)	
	15-A493	1	Screw (#0 x 3/16) Drive Round Head (Pump Housing)	
	16-4	1	Gasket - Nozzle Plug	
	16-14	1	Gasket - Strainer	
	16-A316	1	Gasket - Bowl Cover	
	16-A451	1	Gasket - Nozzle-1	
	16-29	2	Gasket - Float Valve Seat - 1 Diaphragm Pump Assembly-1	
	16-704	1	Gasket Assortment	
	24-262	1	Spring - Throttle Stop	
	24-A223	1	Spring - Pump Diaphragm	
	24-A437	1	Spring - Choke Return	
	25-664	1	Choke Lever Assembly	
	26-872	1	Choke Shaft Assembly	
	27-241	1	Fly - Choke	
	28-110	1	Swivel - Choke	
	29-81	1	Clip - Choke Bracket	
	29-104	1	Bracket - Choke	
	29-569	1	Bracket Assembly	
	30-747	1	Float & Lever Assembly	
	32-16	1	Float Shaft	
	36-418	1	Seat - Power Needle	
	43-720	1	Main Adjusting Needle Assembly	
	43-734	1	Idle Adjusting Screw (Nyllok)	
	44-63	1	Packing - Choke	
	44-127	1	Packing - O-Ring (1/16 x 3/16 I.D. x 5/16 O.D.)	
	44-142	1	Packing - Throttle	
	47-471	1	Nozzle	
	49-432	1	Jet - Minimum Fuel Restriction	
	49-420	1	Jet - Idle Fuel	
	49-533	1	Jet - Pump Discharge Jet Assembly	
	55-230	1	Choke Shaft Cup	
	55-255	1	Retainer - Throttle Shaft Packing	
	56-563	1	Bowl - Cover	
	62-167	1	Pin - Throttle Stop	
	62-433	1	Pin - Choke Shaft	
	68-188	1	Fitting - 5/16 Tube	

TEMPORARY SERVICE PARTS LIST - INSERT IN THE PROPER SECTION OF YOUR MANUAL		
Waukesha 52080-C	10-4735	TSX-880
PART NO.	QUAN.	PART NAME
10-4742	1	Carbureter Body Assembly
13-1218	1	Throttle Shaft & Lever Assembly
14-163	1	Throttle Fly (22°) 3/64 offset
15-85	1	Screw (8-32 x 7/8) Fillister Hd. (Throttle Adjustment)
15-274	1	Screw (5/16-24 x 5/32) Headless Plug, Thr. Body Drilling
15-285	1	Screw (8-32 x 5/16) Slotted Hex Head (Choke Swivel)
15-483	4	Screw (6-32 x 1/4) Pan Hd. SEMS (Choke Fly-2) (Thr. Fly-2)
15-A85	4	Screw (12-24 x 3/4) Fill. Hd. SEMS Thr. Body to Bowl
15-A93	2	Screw (8-32 x 3/8) Pan Head SEMS Choke Bracket
15-A270	1	Screw (8-32 x 3/8) Slot Hex. Hd. SEMS (Choke Bracket Clip)
16-4	1	Gasket - Float Valve Seat
16-491	1	Gasket - Main Adjusting Needle
16-492	1	Gasket - Nozzle
16-A12	1	Gasket - Throttle Body to Bowl
16-594	1	Gasket Set
24-262	1	Spring - Throttle Stop Screw
24-292	1	Spring - Choke Fly Flapper
24-340	1	Spring - Idle Needle
24-A1	1	Spring - Main Adjusting Needle Packing
24-A3	1	Spring - Choke Return
26-653	1	Choke Shaft & Lever Assembly
27-548	1	Choke Fly Assembly
28-49	1	Swivel - Choke
29-81	1	Clip - Choke Bracket
29-123	1	Bracket - Choke
29-551	1	Choke Bracket & Clip Assembly
30-621	1	Float & Lever Assembly
32-16	1	Shaft -Float
36-297	1	Seat - Main Adjusting Needle
43-58	1	Needle - Idle Adjusting
43-620	1	Main Adjusting Needle Assembly Complete
43-631	1	Main Adjusting Needle Assembly
44-38	1	Packing - Choke Shaft
44-65	1	Packing - Throttle Shaft
46-A1	1	Venturi (1" Throat)
47-A96	1	Nozzle
49-203	1	Jet - Idle
49-264	1	Jet - Economizer
49-369	1	Jet - Power
55-214	1	Cup - Throttle Shaft
55-216	1	Retainer - Throttle Shaft Packing
60-260	2	Bushing - Throttle Shaft
62-167	1	Stop Pin
78-299	1	Washer - Main Gasoline Adjusting Needle
82-16	1	Cotter - Choke Swivel
99-7	1	Drain Plug
227-1823	1	Throttle Body (Idle Drilling)
233-608	1	Float Valve, Seat & Gasket Assembly - Matched
286-1437	1	Repair Kit

MARVEL-SCHEBLER PRODUCTS DIVISION

BORG-WARNER CORPORATION

MAIN OFFICE AND FACTORY
DECATUR, ILLINOIS, U. S. A.

1-62

SERVICE BULLETIN January 23, 1962

TO: All Outlets

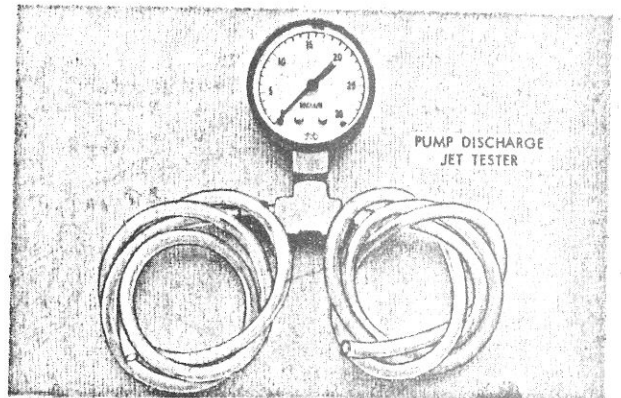
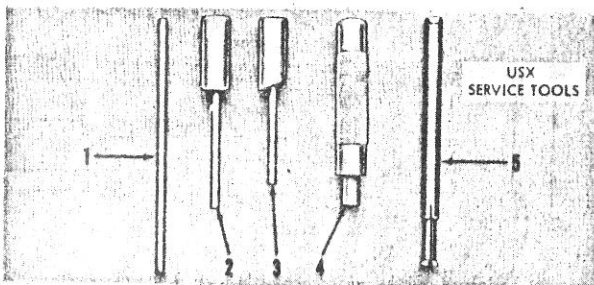
SUBJECT: Service Tools for Model USX Carbureters.

You will be receiving calls for subject service tools as our customers John Deere, Hercules, Case, etc., are referring their dealers to our outlets.

The following is a descriptive list of the tools with net prices. Items 1 and 6 are not available--usually standard shop equipment:

SPECIAL SERVICE TOOLS.

The table below lists the special tools required to insure complete and proper overhaul of the Marvel-Schebler, Model USX Carbureter.



Index No.	Part No.	Net Price.	Name	Use
1		5/32" Diameter Rod, 4" Long.	For driving out the pump discharge jet.
2	M-502	\$ 5.80	Pump Discharge Jet Locating Tool.	For locating the pump discharge jet so that the slot will be in proper position after installation.
3	M-505	12.50	Pump Discharge Jet Installation Tool.	For pressing the pump discharge jet into final position.
4	M-503	4.50	Needle Bearing Installation Tool.	For pressing new throttle-shaft needle bearings into carbureter housing.
5	M-504	6.00	Needle Bearing Removing Tool.	For pressing out throttle-shaft needle bearings.
6		Pump Discharge Jet Tester (can be made with vacuum gage and tubing -- see figure 2-1.)	For checking release pressure (or vacuum) of pump discharge check valve.

(over)

PROPER MAINTENANCE PAYS OFF

Off-the-road vehicles are subjected to the additional service hazard of operating in extreme dust. Dirt in any form in an engine is an abrasive and is the **BIGGEST SINGLE FACTOR IN ENGINE WEAR.**

A considerable amount of research proved that an air leak in the induction system can "wear out" an engine in an extremely short time. Where do these air leaks occur???

Around the air cleaner connectors, in the intake hose, etc. Most important are the leaks which occur in the "high-vacuum" area above the carbureter venturii. Throttle shaft seals must be in good condition at all times. An air leak where the throttle shaft seal contacts the shaft, caused by wear equivalent to a 1/8-inch

diameter hole, can remove one thousandth of an inch from cylinder walls in 50 hours of operation. Compression can disappear at an alarming rate if this condition is permitted to continue.

PLUG THESE LEAKS and SAVE THE ENGINE

Before the Start of Each Season, clean the carbureter thoroughly and replace all throttle-shaft and choke-shaft seals. Reassemble the carbureter with new gaskets throughout.

At Each Engine Overhaul, rebuild the carbureter with a factory recommended repair kit.

**FOR BEST SERVICE, ALWAYS USE
ORIGINAL EQUIPMENT REPAIR PARTS**

MARVEL-SCHIEBLER PRODUCTS DIVISION


R. T. Massey
Service Sales Manager