



CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

Minneapolis Moline

Service and Operator's Manual

Z, ZTN, ZTS, and ZTU,

ZTE after 1948,

ZTN after 1948

JENSALES.COM
or Call 800-443-0625



CLICK ANYWHERE FOR MORE DETAILS

THIS IS A MANUAL PRODUCED BY JENSALES INC. WITHOUT THE AUTHORIZATION OF
MINNEAPOLIS MOLINE OR IT'S SUCCESSORS. MINNEAPOLIS MOLINE AND IT'S SUCCESSORS
ARE NOT RESPONSIBLE FOR THE QUALITY OR ACCURACY OF THIS MANUAL.

TRADE MARKS AND TRADE NAMES CONTAINED AND USED HEREIN ARE THOSE OF OTHERS,
AND ARE USED HERE IN A DESCRIPTIVE SENSE TO REFER TO THE PRODUCTS OF OTHERS.

MM-SO-Z+

Service & Operator's Manual

S - 123A



CLICK ANYWHERE FOR MORE DETAILS



MANUAL PREVIEW

UNIVERSAL

MAINTENANCE

MANUAL

STANDARD

purchase full manual at



JENSALES.COM
or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

MANUFACTURED BY
MINNEAPOLIS-MOLINE COMPANY

Minneapolis, Minnesota

U. S. A.

MINNEAPOLIS MOLINE - MODEL Z

Minneapolis-Moline Co. can trace its beginnings to fanning mills and hay rakes manufactured in Moline, Ill. about 1865.

The Moline cultivator became so popular that farmers, especially in the south, referred to cultivating as "Molining."

With the merger of Minneapolis Threshing Machine Company and the Minneapolis Steel and Machinery Company with Moline in 1929, the M-M Company was formed.

The Twin-City tractor was chosen to be continued, as the tractor previously was manufactured by Minneapolis Steel and Machinery Company.

The merger added M-M to the logo, and the new company became a major manufacturer of tractors. For example, in 1930 the new Minneapolis-Moline Company manufactured about 4,000 tractors. About 2,500 were Twin-City Models, and about 1,500 the M-M KT Model.

The M-M Universal Z was introduced about 1938. It still was called the M-M Twin-City Z or ZTU.

By 1949 the improved Model Z, using only the Minneapolis-Moline name, was introduced. There were several models of the Z. All were equipped with the same size engine; a 206 CID four-cylinder engine of their own make, with a 3-5/8 inch by 5 inch bore and stroke. The engine had a rated speed of 1,500 RPM with 25.1 drawbar horsepower.

The tractor was "visionlined" and easy to service, inspect, and maintain. A smooth hood surface was effected by having the muffler lay horizontal above the engine but covered by the hood. The rear fenders were fan shaped.

The seat would swivel, or could be tilted back so the driver could stand while operating the tractor. The engine had the M-M feature of horizontal valves which had valve seats made of stellite, one of the hardest metals known at that time. The Z models had a 6 volt system. The ZB Model of 1953 had a foot clutch and weighed about 4,200 lbs.

There were several variations of the Z: Models ZA, ZAS, ZAU, ZB, ZT and ZM. The price when new varied from about \$2,050 to \$2,300.

The sales of the ZA model in 1950 were about 6,500 tractors. By 1952 M-M big standard tractor production was almost twice that of the rest of the manufacturers. Even though M-M was one of the smallest of the tractor manufacturers, it produced almost nine percent of the big standard tread tractor market.

This is probably in keeping with the image that is perceived by many people. They will say to the effect "Oh, this an M-M. I thought they made only big tractors."

By 1951 M-M had purchased the B. F. Avery Company and produced a small M-M tractor for a short period. By 1955 M-M was building mostly large tractors.

MINNEAPOLIS-MOLINE MODEL Z TRACTOR

INDEX

AIR CLEANER	37	MAIN BEARINGS	32
AXLES	50	MOTOR, STARTING	45
FRONT	50		
REAR	53	OIL COLLAR	30
		OIL FILTER	21-22
BEARINGS, CONNECTING ROD	29	OIL PUMP	22-25
BEARINGS, FRONT WHEELS	54	OIL SEALS	67
BEARINGS, MAIN	32		
BEFORE STARTING A NEW TRACTOR	7-9	PISTON RINGS	27
BELT, FAN	39	PNEUMATIC TIRES	56-58
BELT PULLEY	48	POWER LIFT	64-66
BELT PULLEY GEAR ADJUSTMENT	49	POWER TAKE-OFF	66-67
BELT PULLEY SPEEDS	50	PULLEY, BELT	48
BRAKES	60-62	PULLEY, SPEEDS	50
		PUMP, OIL	22-25
CARBURETOR	34-36	PUMP, WATER	39
CARBURETOR SCREEN	34		
CLEANER, AIR	37	RADIATOR	38
CLUTCH	33	RINGS, PISTON	27-28
CONNECTING ROD BEARINGS	29	ROCKER ARMS	31
CONNECTING RODS	29		
COOLING SYSTEM	38	SEALS, OIL	67
CRANKSHAFT	32	SKID RINGS	56
CYLINDERS	27	SPARK PLUGS	45
		STARTING AND LIGHTING EQUIPMENT	69
DIFFERENTIAL	48	STARTING MOTOR	45
		STARTING TRACTOR	6-12
ELECTRICAL EQUIPMENT INSTALLATION	69	BEFORE STARTING NEW TRACTOR	7-9
ENGINE TUNE UP	21	GASOLINE	9
EXHAUST MANIFOLD HEAT CONTROL	11-12	INSTRUMENT PANEL AND CONTROLS	6
		LOW GRADE FUELS	9
FAN BELT	39	STEERING GEAR	62-63
FILTER, FUEL	36	STORAGE PRECAUTIONS	68-69
FILTER, OIL	21-22		
FUELS, LOW GRADE	9	THERMOSTAT	38
		TIMING MAGNETO	42-44
GENERAL DATA	2-3-4	TIRES	56
GENERATOR	46	TRANSMISSION	47-48
GOVERNOR	25-27	VALVES	30-31
		VALVE, TIMING	31
IGNITION TIMING	43-44		
INSTRUMENT PANEL AND CONTROLS	6-7	WATER PUMP	39
LIFT, POWER	64-66	WHEEL ADJUSTMENT, ROW CROP	59
LUBRICATION CHARTS	15-16	WHEELS	54-56
LUBRICATION, ENGINE	13-14	ADJUSTMENT	54
LUBRICATION, GENERAL	15-20	FRONT LUBRICATION	54
LUBRICATION, VALVE STEMS	31	LUGS	55
MAGNETO	41-44	SKID RINGS	56
MAGNETO TIMING	42-44	WEIGHTS	56
		WINTER, OPERATION	68
		WINTER STORAGE PRECAUTIONS	68-69

CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

JENS SALES®

purchase full manual at

CROSS SECTION OF UNIVERSAL MODEL (ZTU)

JENS SALES.COM

or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS



FIG. 51 WATER PUMP

6. BEFORE COMPLETING THE REASSEMBLY, NOTE THE CONDITION OF THE BAFFLE PLATE. IF IT IS RUSTED BADLY, REPLACE IT. NEVER RUN A PUMP WITH A DEFECTIVE BAFFLE OR THE PUMP WILL SOON BE RUINED. PLACE A GASKET ON EACH SIDE OF THE BAFFLE AS SHOWN IN FIG. 51.

RADIATOR FAN

THE FAN IS MOUNTED ON AN OILITE BUSHING. THIS BUSHING ALLOWS OIL FROM THE OIL CHAMBER TO SEEP THROUGH TO THE BEARING SURFACE. SINCE LUBRICATION IS DEPENDENT ON THIS ACTION, IT IS IMPORTANT THAT THE PROPER GRADE OF OIL BE USED. USE ENGINE OIL OF THE SAME GRADE THAT IS USED IN THE ENGINE CRANKCASE. FILL CHAMBER HALF FULL AND CHECK WEEKLY THROUGH THE PLUG OPENING. GREASE OR TRANSMISSION OIL MUST NOT BE USED. ALWAYS USE A PLUG RATHER THAN A FITTING TO CLOSE THE OIL HOLE.

IF THE FAN BEARING NEEDS REPLACING OR IT BECOMES NECESSARY TO DISASSEMBLE THE FAN, PROCEED AS FOLLOWS:

1. REMOVE THE FAN ASSEMBLY FROM ITS BRACKET BY REMOVING THE LARGE NUT.

2. TAKE OUT THE FOUR CAP SCREWS HOLDING THE BLADES TO THE HUB.

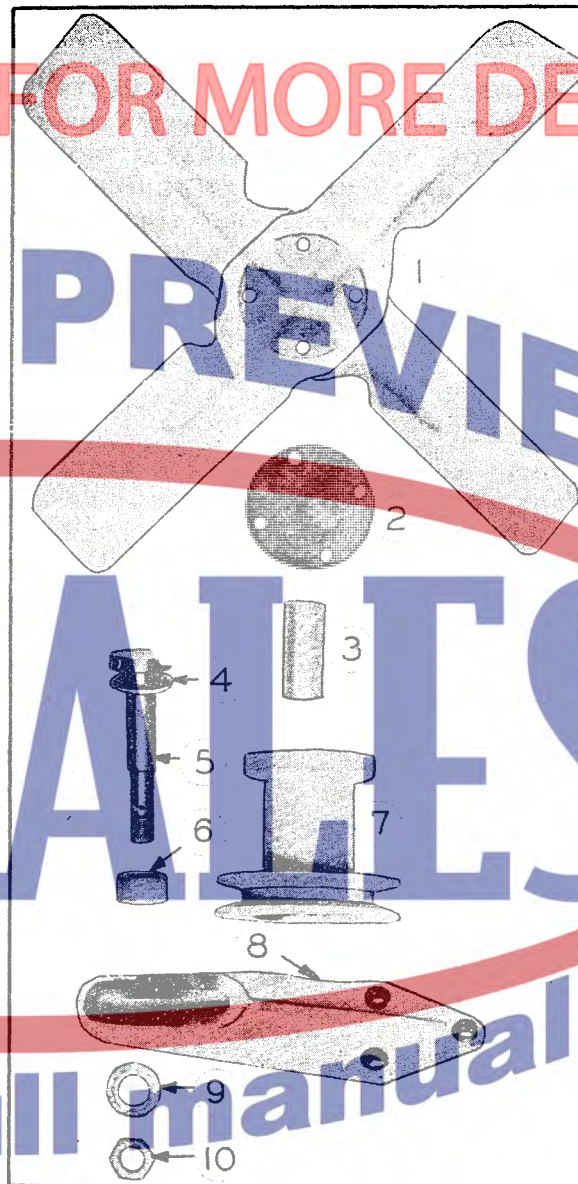


FIG. 52 FAN ASSEMBLY

3. THE SHAFT MAY THEN BE SLIPPED OUT AFTER THE COTTER PIN AND SPACER ARE REMOVED.

4. DRIVE OUT THE OLD BUSHING AND CAREFULLY PRESS IN THE NEW BUSHING SO AS NOT TO DAMAGE IT. THIS BUSHING MUST NOT BE REAMED SINCE THIS WOULD AFFECT THE LUBRICATION. IF THE THRUST WASHER IS WORN, IT SHOULD BE REPLACED. BE SURE IT IS ON THE SHAFT BEFORE IT IS PUT BACK ON THE HUB.

5. REASSEMBLE THE FAN AND FILL THE OIL CHAMBER WITH OIL.

MINNEAPOLIS-MOLINE MODEL Z TRACTOR



FIG. IX INSTALLATION OF WIRING HARNESS AND OIL LINE

B. ATTACH CLAMP (12C) TO ONE OF THE CAP SCREWS HOLDING THE REAR AXLE HOUSING TO THE TRANSMISSION CASE, AND CLAMP IT AROUND WIRE (12B). BOLT CLAMPS (12D) OVER THE WIRE AND TO THE FENDER IN THE THREE HOLES PROVIDED. SEE FIG. X.

C. THE WIRING HARNESS (10) CONTAINING WIRES (12 AND 12A) PASSES BETWEEN THE MAGNETO AND FRONT CYLINDER BLOCK. CONNECT WIRE (12), THE LARGE ONE, TO THE POST MARKED (BAT) ON THE REGULATOR UNIT OF THE GENERATOR. CONNECT WIRE (12A) TO THE POST MARKED (F) ON THE GENERATOR, ALL AS SHOWN IN FIG. V.

13. ATTACH THE LAMP BRACKETS (13A) TO THE SIDES OF THE RADIATOR SHELL AS SHOWN IN FIG. IV WITH CAP SCREW AND LOCK WASHERS (13B).

A. BOLT LAMPS (13) TO THEIR RESPECTIVE BRACKETS.

14. STRING WIRE (14) AND WIRE EXTENSION (14A) UP THE INNER SIDES OF THE RADIATOR SHELL AND THROUGH THE HOLES IN THE SHELL, PLACING GROMMETS (14B) OVER THE WIRES AND INTO THE HOLES AS SHOWN IN FIG. IV. REMOVE THE TEMPORARY PLUGS FROM THE LAMP SOCKETS AND INSERT THE WIRES INTO THE LAMP SOCKETS.

PLACE BATTERY (NOT FURNISHED) IN THE BATTERY BOX SO THE BRAIDED GROUND STRAP SHOWN AS (B), FIG. X, WHICH IS BOLTED TO THE SIDE OF THE BOX, CAN BE ATTACHED TO THE POSITIVE POST ON THE BATTERY. CONNECT THE SHORT OR BATTERY CABLE (8) TO THE NEGATIVE POST ON THE BATTERY, AFTER FIRST PLACING GROMMET (8D) AROUND THE CABLE AND INTO THE BATTERY BOX CABLE OPENING.

15. ITEMS (15 AND 15A) ARE USED WHEN A GENERATOR AND LIGHTING SYSTEM ONLY IS INSTALLED. WIRE (15) IS USED AS LIGHT WIRE, AND ITEM (15A) IS A CLAMP TO CONNECT IT TO THE BATTERY.