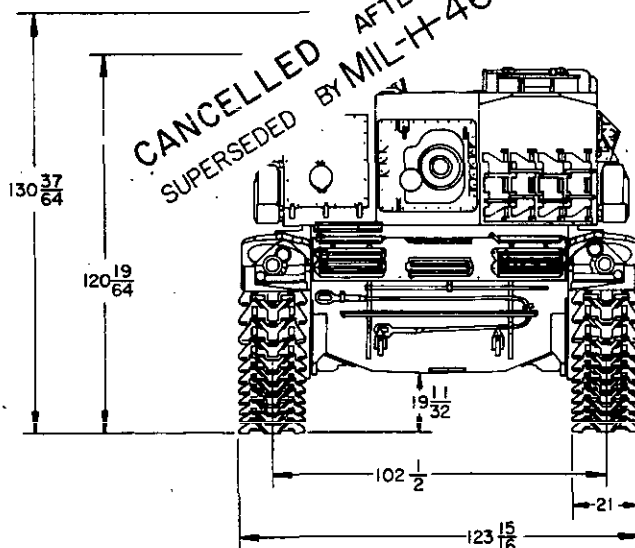
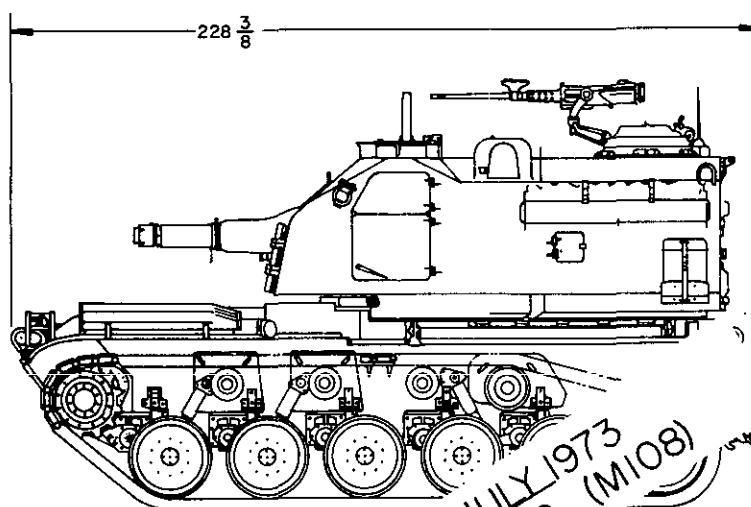
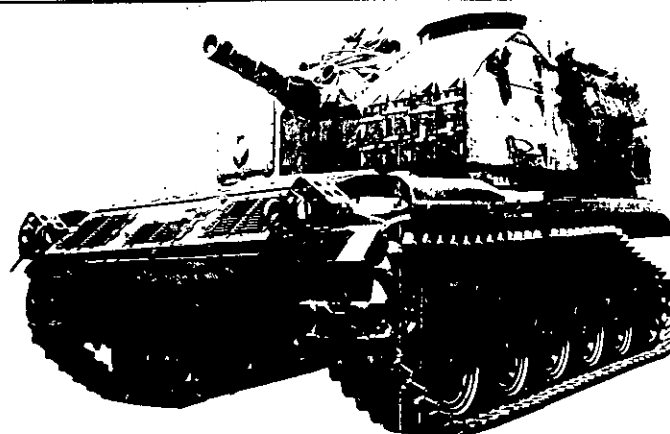


REVIEW ACTIVITIES: ARMY—WC, MU, EL

FED. SUP CLASS  
2350

CANCELLED AFTER 25 JULY 1973  
SUPERSEDED BY MIL-H-46709B (M108)

DIMENSIONS ARE IN INCHES AND  
ARE SHOWN FOR ENGINEERING  
REFERENCE ONLY

P.A. MO (ATAC) Other Cust	TITLE <b>HOWITZER, LIGHT, SELF PROPELLED 105 MM, M52A1</b>	MS PART NO. MS 51985-1	DRAWING NO. 8736128
PROCUREMENT SPECIFICATION NONE	SUPERSEDES:	MILITARY STANDARD <b>MS 51985 (MO)</b>	
		SHEET 1 OF 2	

This drawing has been approved by the Department of the ARMY and is mandatory for use in that activity. All other military activities are required to comply with this standard where suitable.

DD FORM 672-1 (limited coordination)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 7 MAY 1964 REVISED (A) 25 JULY 1973

REVIEW ACTIVITIES: ARMY-WC, MU, EL

## VEHICLE CHARACTERISTICS

FED. SUP CLASS  
2350GENERAL

WEIGHT (COMBAT LOADED) APPROX. 53,000 LBS.  
CREW 5  
WEIGHT (LESS CREW, STOWAGE AND FUEL) 49,800 LBS.  
CENTER OF GRAVITY 44.5 IN. ABOVE GROUND  
98.2 IN. FROM CENTERLINE OF SPROCKET  
UNIT GROUND PRESSURE 8.5 LBS/SQ. IN.  
TURRET RING DIA. (INSIDE) 73 IN.

ARMORVISION AND FIRE CONTROL EQUIPMENT

PERISCOPE, VISION	TYPE M13	QTY. 4
PERISCOPE, COMMANDERS	TYPE M15A1	QTY. 1
PERISCOPE, DRIVERS	TYPE M17	QTY. 5
PERISCOPE	TYPE M23	QTY. 1
SIGHT, TELESCOPE	TYPE M100	QTY. 1
PANORAMIC		
SIGHT, TELESCOPE	TYPE M101	QTY. 1
QUADRANT, GUNNERS	TYPE M1A1	QTY. 1
SETTER, FUZE	TYPE M26	QTY. 1
SETTER, FUZE	TYPE M27	QTY. 1

ARMAMENT, PRIMARY

HOWITZER, 105 MM, M49 MOUNT, M85  
RECOIL MECHANISM TYPE: CONCENTRIC HYDRO-  
SPRING  
TRAVERSE: RIGHT, 60° LEFT, 60°  
POWER TYPE: NONE MANUAL TYPE: GEAR & PINION  
ELEVATION: +65° DEPRESSION: -10°  
POWER TYPE: NONE MANUAL TYPE: RACK & PINION

ARMAMENT, SECONDARY

GUN, MACHINE, CAL. .50 M2, A.A. MOUNT, CAB ROOF  
TRAVERSE, 360° ELEVATION +85°  
DEPRESSION -15°  
GUN, SUB-MACHINE, CAL. .45 M3A1 (1) IN CAB  
CARBINE, CAL. .30, M2 (4) IN CAB

AMMUNITION

102 RDS. 105 MM  
945 RDS. CAL. .50  
840 RDS. 30 CAL.  
180 RDS. 45 CAL.  
8 GRENADES, HAND

RUNNING GEAR

SUSPENSION TYPE: INDEPENDENT TORSION BAR  
WITH TRAILING IDLER  
NO. OF WHEELS: 5 DUALS EACH SIDE, DISK TYPE  
WHEEL SIZE 25 1/2 IN.  
TIRES, 10 DUALS; TYPE, SOLID RUBBER,  
25 1/2 x 4 1/2  
TRACK: TYPE T91E3, STEEL, W/DETACH, RUBBER PADS  
NO. SHOES/TRACK, 74L, 75R PITCH, 6 IN.  
WIDTH, 21 IN.

ELECTRICAL SYSTEM

NOMINAL VOLTAGE, 24  
GENERATOR, MAIN, 150 AMP, PART NO. 8724633  
GENERATOR, AUX. NONE  
BATTERY: (4) TYPE 6TN, 12-V, 100 AMP., MS35000-4  
IGNITION SYSTEM: MAGNETO, MS 51333  
COIL, MS 51355-1

POWER PACKAGEENGINE

TYPE: 6 CYL. HORIZONTAL OPPOSED, AIR COOLED,  
FUEL INJECTION, MS 51314-1  
DISPLACEMENT, 895 CU. IN. BORE, 5.75 IN.  
STROKE, 5.75 IN.  
GOVERNOR SPEED, 2800 RPM COMPRESSION RATIO  
5.5:1  
FUEL, GASOLINE RATING, 80 OCTANE  
BRAKE HORSEPOWER (STANDARD CONDITIONS) 500 @  
2800 RPM  
TORQUE (STANDARD CONDITIONS) 945 LB./FT. @  
2000 RPM  
MAIN COOLING SYSTEM: AIR, ENGINE DRIVEN INTEGRAL  
FAN  
OIL COOLING SYSTEM: AIR, ENGINE DRIVEN INTEGRAL  
FAN

POWER TRAIN

TYPE: CROSS DRIVE TRANSMISSION, PART  
NO. 7527947  
HYDRAULIC CONVERTER, SINGLE STAGE,  
MULTIPHASE STALL MULTIPLICATION, 4:1  
OVERALL USABLE RATIOS: LOW, 14.9  
HIGH, 3.9; REVERSE, 14.9  
STEERING CONTROL: HYDRAULIC SERVO,  
HANDLE BAR STEERING RATE, 6.8 RPM  
TURNING RADIUS, PIVOTS  
BRAKES: MULTIPLE DISK, OPERATION: FOOT  
PEDAL, HYDRO-MECHANICAL  
OIL COOLING SYSTEM: AIR, ENGINE DRIVEN  
INTEGRAL FAN

FINAL REDUCTION

TYPE: SPUR GEAR, RATIO 4.75:1 FT/REV 6  
SPROCKET PITCH DIA. 23.422 No. OF TEETH 12

COMMUNICATIONS

RADIO SET: SCR-619 OR SCR-610  
LOCATION: CAB  
RADIO SET: AN/PRC 8, 9, OR 10  
INTERPHONE: MODEL AN/UIC-1, 5 OUTLETS  
EXTERNAL INTERPHONE EXT. KIT - MODEL  
C-980/U

FIRE EXTINGUISHER

FIXED: (2) CO<sub>2</sub>, 10 LB. BOTTLES  
PORTABLE: (1) CO<sub>2</sub>, 5 LB. BOTTLE

CAPACITIES

FUEL, TOTAL, 174 GALLONS  
CRANKCASE, REFILL, 44 QUARTS  
TRANSMISSION, REFILL, 44 QUARTS  
FINAL DRIVE, REFILL, 5 QUARTS

PERFORMANCE

GROSS HORSEPOWER TO WEIGHT RATIO: 18.9 HP/TON  
MAXIMUM TRACTIVE EFFORT, 41,000 LBS.  
TE/W, 0.77  
MAX. SPEED 42 MPH MAX. GRADE 60%  
MAX. TRENCH 72 IN. MAX. VERTICAL WALL 30 IN  
MAX. FORDING DEPTH 48 IN.  
CRUISING RANGE 100 MILES

THIS VEHICLE SHALL BE IN ACCORDANCE WITH  
REFERENCED DRAWING NO. 8736128, COPY OF WHICH  
MAY BE OBTAINED FROM ARMY TANK AUTOMOTIVE  
CENTER, DETROIT ARSENAL, WARREN, MICHIGAN,  
ATTN: STANDARDIZATION BRANCH.

P.A. MO (ATAC)	TITLE	MILITARY STANDARD
Other Cust	HOWITZER, LIGHT, SELF PROPELLED 105 MM, M52A1	MS 51985 (MO)
PROCUREMENT SPECIFICATION NONE	SUPERSEDES:	SHEET 2

DD FORM 672-1 (Limited coordination)

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APPROVED 7 MAY 1964 REVISED (A) FOR CHANGE SEE SHEET 1

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