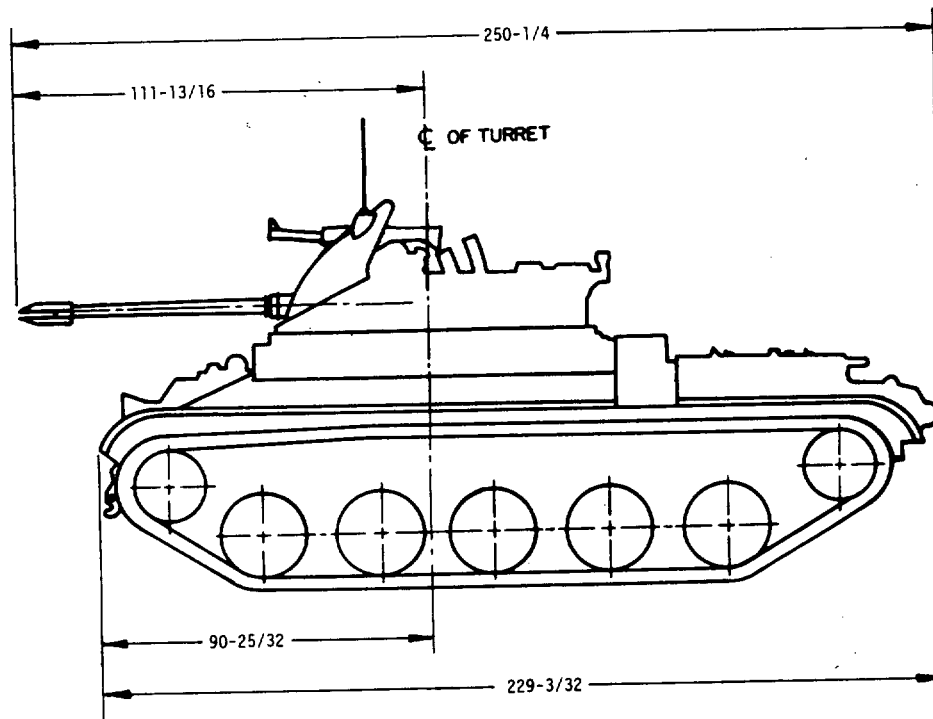
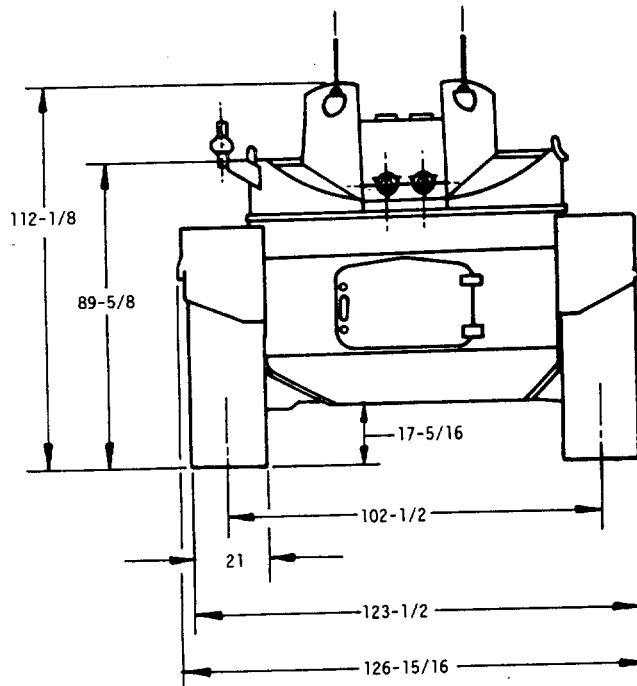


FED. SUP CLASS  
2350

(B) ENTIRE STANDARD REVISED

MS PART NO.	DRAWING NO.
MS 51978 -1	8750204

P. A. ARMY-AT Other Cust	INTERNATIONAL INTEREST	TITLE GUN, ANTI-AIRCRAFT ARTILLERY, SELF-PROPELLED: TWIN 40 MM, M42 A1
PROCUREMENT SPECIFICATION NONE	SUPERSEDES:	

MILITARY STANDARD	
MS51978(AT)	
SHEET 1	OF 2

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1 MAY 73

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

APPROVED 4 MARCH 1964 REVISED (B) 3 JUL 85

FED. SUP CLASS  
2350

## VEHICLE CHARACTERISTICS

**WEIGHT:**  
COMBAT LOADED 49,800 LBS  
6 MAN CREW  
LESS CREW, STOWAGE AND FUEL 44,300 LBS  
GROUND PRESSURE 9.3 LBS/SQ IN

**VISION AND SIGHTING EQUIPMENT:**  
2 PERISCOPE, VISION, DRIVER'S M13 OR M13B1  
2 PERISCOPE, SIGHT, COMMANDER'S M13 OR M13B1  
1 SIGHT, COMPUTING M38  
1 SIGHT, REFLEX M24C  
2 SIGHT, RING  
1 QUADRANT, GUNNER'S M1A1  
1 PERISCOPE, VISION, DRIVER (OTHER) M19  
1 INDICATOR, AZIMUTH M27

**ARMAMENT:**  
PRIMARY GUN, DUAL/AUTOMATIC M2A1  
MOUNT M4E1  
RECOIL MECH, TYPE SPRING AND OIL  
RECUPERATOR  
TRAVERSE, RIGHT 360°  
LEFT 360°  
RATE 40°/SEC  
POWER, TYPE HYDRAULIC, MANUAL  
GEAR AND PINION  
ELEVATION 85°  
DEPRESSION 30°  
RATE 25°/SEC  
STABILIZER SYSTEM NONE

**SECONDARY ARMAMENT:**  
1 MACHINE GUN, 7.62MM M60  
FLEX RT FRT GUN MT OR  
REAR GUN MT, TRAVERSE 360°  
ELEVATION, RT FRT 76°  
REAR 60°  
1 SUB MACH GUN, 45 CAL M3A1  
CREW COMP  
5 RIFLE, 7.62MM OR M14  
5.56MM M16  
GUN MT 4, CREW COMP 1  
1 ROCKET LAUNCHER, BOX, REAR DECK M20

**AMMUNITION:**  
40 MM 480 ROUNDS  
7.62MM, MG, LINK METALLIC BELT 1750 ROUNDS  
45 CAL 180 ROUNDS  
7.62MM OR 5.56MM, RIFLE 900 ROUNDS  
3.5 IN ROCKETS 4  
GRENADES 8

**RUNNING GEAR:**  
SUSPENSION, TYPE TORSION BAR  
5 DUAL WHEELS, EA SIDE, SIZE 25-1/2  
TRACK, T91E3, STEEL W/  
DETACHABLE RUBBER PADS, CENTER  
GUIDE, SINGLE PIN  
SHOES, PITCH 6, WIDTH 21 75/TRACK  
TIRES, SOLID RUBBER, 25-1/2 X 4-1/2 NO 20

**ELECTRICAL SYSTEM:**  
NOMINAL VOLTAGE 24 VOLTS  
GENERATOR, MAIN, 150 AMPS 7727461  
GENERATOR, AUX, 300 AMPS 7402950  
4 BATTERIES, 6TN, 12V, M535000-4  
100 AMP HRS  
2 IGNITION SYSTEMS, MAGNETO 7974214  
& 7974215  
COIL M551355-1  
DISTRIBUTOR 7403411  
STARTER 7538988

**ENGINE:**  
6 CYL, HORIZONTAL OPPOSED, 8376655  
AIR COOLED  
FUEL INJECTION M551314-1  
DISPLACEMENT 895 CU IN  
BORE 5.75 STROKE 5.75  
FUEL, GASOLINE, 80 OCTANE (APPROX) 140 GAL  
GOVERNED SPEED 2950 RPM  
COMPRESSION RATIO 5.5:1  
MAX GROSS HORSEPOWER 5000 2800 RPM  
MAX NET HORSEPOWER 4460 2400 RPM  
MAX GROSS TORQUE 955 LB/FT@ 2400 RPM  
MAX NET TORQUE 890 LB/FT@ 2200 RPM  
MAIN COOLING SYSTEM AIR  
OIL COOLING SYSTEM LIQUID  
ENGINE OIL CAPACITY 44 QTS

**POWER TRAIN:**  
CROSS DRIVE TRANSMISSION 7527947  
HYD CONVERTER SINGLE STAGE  
MULTIPHASE STALL MULTIPLICATION 4:1  
OVERALL USEABLE RATIO, LOW  
15.3:1, HIGH 4:1, DIRECT 1:1,  
REVERSE 15:1  
STEERING RATE 6.8 RPM  
TURNING RADIUS, PIVOT TO INFINITY  
STEERING CONTROL TEE BAR SERVO  
BRAKES MULTIPLE DISC  
OPERATION, MECH FOOT PEDAL  
OIL COOLING SYSTEM, ENGINE  
MOUNTED COOLER, AIR COOLED  
WITH ENGINE DRIVEN FAN

**FINAL REDUCTION:**  
SPUR GEAR, RATIO 4.25:1  
FT/REV 1.44  
SPROCKET, 23.44 PITCH DIA 12 TEETH

**COMMUNICATIONS:**  
RADIO SET, RT SIDE, COMMANDER AN/VRC 46  
RADIO SET, RT SIDE, COMMANDER AN/VRC 8,9 OR 10  
INTERPHONE, OUTLETS-NONE AN/UIC-1

**FIRE EXTINGUISHER:**  
FIXED, TWO 10 LB CO2 7714476  
PORTABLE, ONE 5 LB CO2 7714780

**PERFORMANCE:**  
GROSS HORSEPOWER TO WEIGHT RATIO 20.05 HP/TON  
MAX TRACTIVE EFFORT 40,000 LBS TE/W 93%  
MAX SPEED 45 MPH  
MAX GRADE 60°  
MAX TRENCH CROSSING WIDTH 72 IN  
MAX VERTICAL WALL 28 IN  
MAX FORDING DEPTH 48 IN  
CRUISING RANGE 120 MI

**GENERAL:**  
CENTER OF GRAVITY, ABOVE GROUND 41-3/4 IN  
TURRET RING, INSIDE DIA 31 IN

## NOTES:

1. DIMENSIONS ARE IN INCHES AND ARE SHOWN FOR ENGINEERING REFERENCE ONLY.
2. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.
3. THIS VEHICLE SHALL BE IN ACCORDANCE WITH REFERENCED ENGINEERING DRAWINGS. COPIES WHICH MAY BE OBTAINED FROM: US ARMY-AUTOMOTIVE COMMAND, WARREN, MICH. 48397-5000.

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