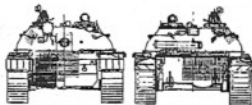




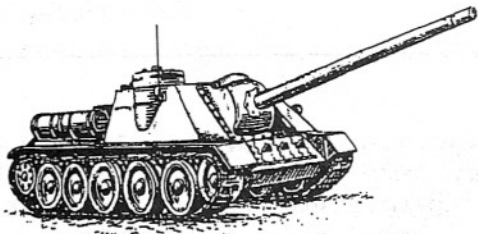
ASSISTANT FUEL TANK ON REAR DECK  
NOT SHOWN.



□ ENGINE AND DRIVE TRAIN    ■ AMMUNITION    ■ FUEL

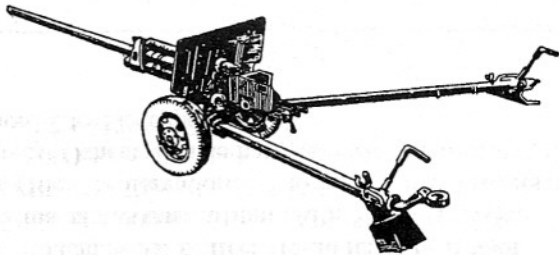
## T-62

**Type:** medium tank **Armament:** 115mm main gun **Max range:** 12,200m **Max effective range:** 1,870m **Rate of fire:** 3-5 rds/min **Stabilization:** yes **Ammunition:** Frag-HE, HEAT, APFSDF-T **Armor penetration at 1,000m:** 495mm HEAT, 360mm APFSDF-T **Basic load:** 40 rds **Hull thickness:** 15-100mm **Turret Frontal Thickness:** 200mm **Road range:** 450 km **Max fording:** 1.4m (5m with snorkel) **Vertical obstacle:** .8m **Trench:** 2.85m **Max speed dirt road:** 35 km/hr **Max speed paved road:** 50 km/hr **Climb slope:** 30 degrees **Other:** 7.62mm machinegun, some may have 12.7mm machinegun, smoke, can be fitted with mine clearing device.



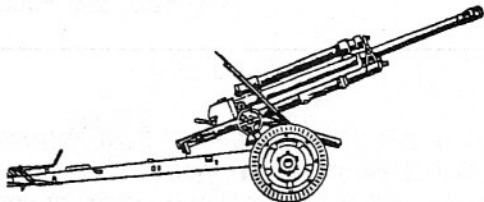
### SU-100

**Type:** assault gun **Armament:** 100mm main gun **Max range:** 15,650m **Max effective range:** 800m **Rate of fire:** 7 rds/min **Ammunition:** APHE, HEAT **Armor penetration:** 185mm (APHE) 380mm (HEAT) **Road range:** 300 km **Max speed paved road:** 300 km **Other:** elevation -2 to 17 degrees



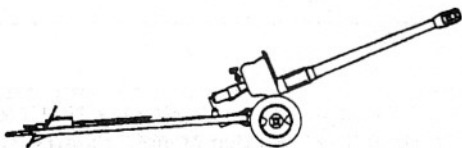
### M-1943 (ZIS-2)

**Type:** antitank gun **Caliber:** 57mm **Max effective range:** 8,400m **Rate of fire:** 25 rds/min **Armor penetration at 500m:** 106mm (AP), 140mm (HVAP) **Elevation:** -5 to 25 degrees **Traverse:** 54 degrees **Other:** distinguished by its long thin tube with no muzzle brake



### M-1942 (ZIS-3)

**Type:** antitank gun **Caliber:** 76mm **Max effective range:** 1,000m **Rate of fire:** 15-20 rds/min **Armor penetration at 1,000m:** 61mm (AP), 58mm (HVAP), 120mm (HEAT) **Elevation:** -5 to 37 degrees **Traverse:** 54 degrees **Other:** double baffle muzzle brake, also designated Chinese Type-54



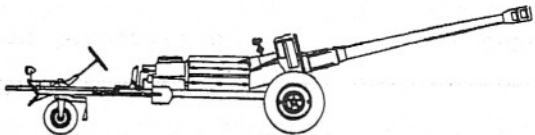
### D-44

**Type:** antitank gun **Caliber:** 85mm **Max effective range:** 950m (APHE), 1,150m (HVAP) , 15,700m (HE)  
**Rate of fire:** 15-20 rds/min **Armor penetration at 1,000m:** 100-110mm **Elevation:** 17 to 35 degrees  
**Traverse:** 54 degrees **Other:** adaptation of T-34 tank main gun, basic unit of fire 140 rds, double baffle muzzle brake

# LINE DIAGRAM UNAVAILABLE

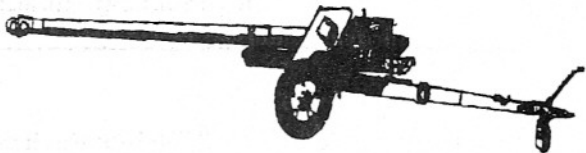
## SD-44

**Type:** antitank gun **Caliber:** 85mm **Max effective range:** 950m (APHE), 1,150m (HVAP), 15,700m (HE)  
**Rate of fire:** 10-15 rds/min **Other:** propelled by 14hp engine, 25 km/hr road, 10 km/hr cross-country, made for use by airborne units



## D-48

**Type:** antitank gun **Caliber:** 85mm **Max effective range:** 1,200m (HVAP), 18,900m (HE) **Rate of fire:** 15 rds/min (8 rds/min sustained) **Other:** long rifled barrel, basic unit of fire 150 rds



### M-1944 (BS-3)

**Type:** antitank gun **Caliber:** 100mm **Max effective range:** 900m (HEAT), 1,100m (AP) 21,000m (HE) **Rate of fire:** 8-10 rds/min (1-2 rds/min sustained) **Armor penetration:** estimated at up to 180mm (uses same ammunition as SU-100 and T-54 which would allow for considerable increase in armor penetration) **Other:** basic unit of fire is 60 rds



# ATGM SYSTEMS

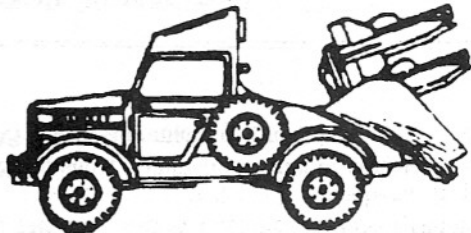
**Description:** North Korea has the Russian designed AT-1/SNAPPER, AT-3/SAGGER, AT-4/SPIGOT (A and B), and probably the AT-5/SPANDREL in its inventory. North Korea has the capability to produce the AT-3. ATGMs are used in the crew portable role (AT-3), the vehicle borne role (AT-1, AT-3, AT-4, and possibly AT-5), and possibly in the heliborne role (AT-3).

## ATGM SYSTEM CHARACTERISTICS

SYSTEM	MIN/MAX RANGE (m)	ARMOR PENETRATION (mm)	GUIDANCE COMMAND LINK	LAUNCH PLATFORMS
AT-1	600/2000	380	MCLOS/wire	Vehicle
AT-3	400/3000	500	MCLOS & SACLOS/Wire	Ground, LAV, Helicopter
AT4A	75/2000	500	SACLOS/Wire	Ground LAV
AT-4B	75/2500	550	SACLOS/Wire	Ground/LAV
AT-5	70/4000	650	SACLOS/Wire	Ground/LAV

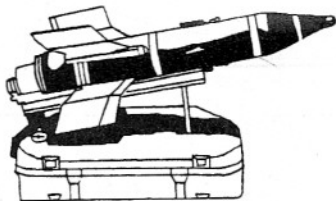
**MCLOS:** manual command to line of sight

**SACLOS:** semi-automatic command to line of sight



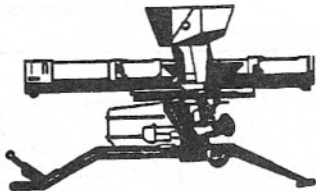
### AT-1/SNAPPER

**Description:** The AT-1 is a MCLOS ATGM system launched from jeep-type wheeled vehicles. The AT-1 has a warhead capable of penetrating 380mm of armor and a range of 2,000 meters. The AT-1 is easily recognized by its wide wing span and pointed nose. The AT-1 is obsolescent and is probably found only in reserve units. The Russian name for this system is SHMEL (Bumblebee).



**AT-3/SAGGER**

**Description:** The AT-3 is both a MCLOS and a SACLOS guided ATGM that can be fired from a variety of launch platforms. The MCLOS AT-3 includes the man-portable (suitcase) and light tank mounted versions. The AT-3 may be deployed in very limited numbers on helicopters. Any heliborne versions almost certainly will use MCLOS guidance. Dedicated ATGM vehicles are likely to be equipped with SACLOS AT-3 systems. The missile has a 3,000m range and a wire command link. The AT-3's armor penetration has been estimated in excess of 400mm. The AT-3 is the most widely deployed ATGM system in North Korea. It is believed that the AT-3 has been in production in North Korea since the early 1980s. The Russian name for the AT-3 is MALYUTKA (Little Baby).



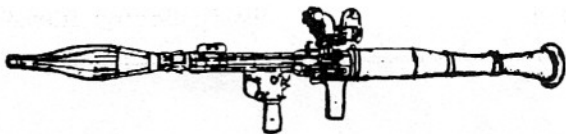
### AT-4/SPIGOT

**Description:** The AT-4 is a SACLOS guided ATGM that is launched from a crew portable tripod placed on the ground or mounted on a light armored vehicle. The AT-4 system was first identified as being in the North Korean inventory during the April 1992 military parade in Pyongyang. The same launcher is used when firing both the AT-4 and the AT-5. Two versions of the AT-4, the AT-4A and AT-4B, are available but it is unknown which version North Korea has. The AT-4A and AT-4B can penetrate 500mm and 550mm of armor and have ranges of 2,000 and 2,500m, respectively. The Russian names for this system are FAGOT (Bassoon) and FACTORIA.



### AT-5/SPANDREL

**Description:** The AT-5 is a SACLOS guided ATGM that is launched from the same launcher as the AT-4 (portable ground or LAV). The AT-5 has a warhead that can penetrate 650mm of armor and a maximum range of 4,000m. The Russian name for the AT-5 is KONKURS (Conte



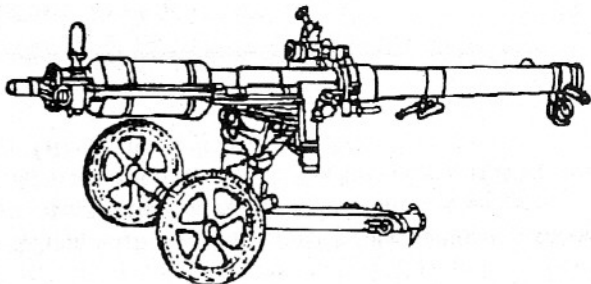
## RPG-7

**Type:** 85mm warhead, 40mm launch tube, antitank grenade launcher **Ammunition:** variety of fin stabilized rounds, including rocket assisted HEAT round **Max range:** 920m **Max effective range:** 500m stationary target, 300m moving target **Armor penetration:** 330mm (HEAT), armor penetration not affected by range due to use of shaped charge, severely affected by angle of impact **Rate of fire:** 4-6 rds/min **Other:** reusable, shoulder fired, hit probability reduced 50% in crosswinds as low as 7 mph, folding version (RPG-7D), RPG-7V can be fitted with telescope, IR sight, and passive night sight



### RPG-2

**Type:** 82mm warhead, 40mm launch tube, antitank grenade launcher **Ammunition:** HEAT **Max effective range:** 100m **Armor penetration:** 152-180mm **Rate of fire:** 4-6 rds/min **Other:** reusable, shoulder fired



### B-10 RCL

**Type:** 82mm smoothbore antitank weapon **Ammunition:** HE, HEAT (fin stabilized) **Max range HE round:** 7,300m **Max effective range:** 400m **Armor penetration:** 240mm (HEAT) **Rate of fire:** 6-7 rds/min **Other:** towed on 2 wheels which are removed to fire; if necessary, can be fired on wheels; telescopic sight for direct fire; panoramic sight for indirect fire; both sights can be illuminated for night firing; bar on muzzle allows B-10 to be dragged into position; Chinese T-65 is a copy of B-10





### B-11 RCL

**Type:** 107mm smoothbore antitank weapon **Ammunition:** HEAT, HE (fin stabilized) **Max range HE round:** 7,300m  
**Max effective antitank range:** 450m **Armor penetration:** 380mm (HEAT) **Rate of fire:** 5-6 rds/min **Other:** HE round for indirect fire, towed by muzzle on two wheeled carriage

The following artillery systems are known to be in the North Korean inventory. No open source data was available at handbook publication date.

120mm SP combination gun M-1992

122mm SP gun M-1981

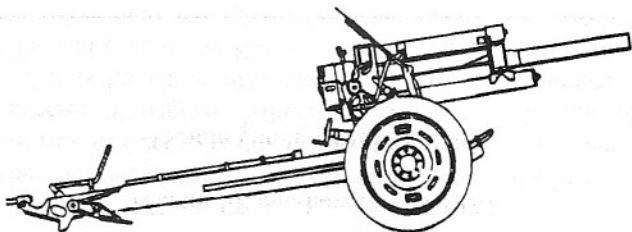
122mm SP howitzer M-1991

130mm SP gun M-1975

130mm SP gun M-1992

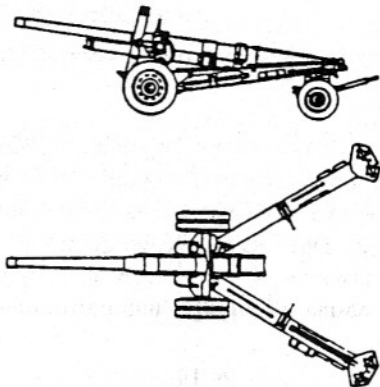
152mm SP gun-howitzer M-1974

152mm gun-howitzer M-1985



### M-30 (M-1938)

**Type:** 122mm towed howitzer **Maximum range:** 11,800m **Max rate of fire:** 6 rds/min **Elevation:** -3 to 65 degrees **Traverse:** 49 degrees **Other:** no muzzle brake, used in the Korean War



### A-19 (M-1937)

**Type:** 122mm towed gun **Maximum range:** 20,400m  
**Max rate of fire:** 5 rds/min **Elevation:** -5 to 69 degrees  
**Traverse:** 58 degrees **Other:** developed in 1931, improved and fully fielded in 1937, finished production in the late 1940s, and used in the Korean War, estimated 160mm armor penetration, thick gun tube with muzzle brake