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
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

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>MIN/MAX RANGE (m)</th>
<th>ARMOR PENETRATION (mm)</th>
<th>GUIDANCE COMMAND LINK</th>
<th>LAUNCH PLATFORMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-1</td>
<td>600/2000</td>
<td>380</td>
<td>MCLOS/Wire</td>
<td>Vehicle</td>
</tr>
<tr>
<td>AT-3</td>
<td>400/3000</td>
<td>500</td>
<td>MCLOS &amp; SACLOS/Wire</td>
<td>Ground, LAV, Helicopter</td>
</tr>
<tr>
<td>AT-4A</td>
<td>75/2000</td>
<td>500</td>
<td>SACLOS/Wire</td>
<td>Ground, LAV</td>
</tr>
<tr>
<td>AT-4B</td>
<td>75/2500</td>
<td>550</td>
<td>SACLOS/Wire</td>
<td>Ground, LAV</td>
</tr>
<tr>
<td>AT-5</td>
<td>70/4000</td>
<td>650</td>
<td>SACLOS/Wire</td>
<td>Ground, LAV</td>
</tr>
</tbody>
</table>

MCLOS: manual command to line of sight
SACLOS: semi-automatic command to line of sight

Equipment Recognition 6-29
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).
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.

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Equipment Recognition  6-32
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 (Contes...
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