

CLAIMS

1. An arrangement for feeding ammunition (A) to a weapon (20), the weapon (20) being mounted to an elevation device (30) arranged to allow elevation movement of the weapon (20) about an elevation axis (Z1), the arrangement
5 comprising a feeding chute (40; 140) connected at one end to the weapon (20), the feeding chute (40; 140) comprising a set of elements (42; 142) assembled together in a stacked configuration, wherein the set of elements (42; 142) is arranged about a shaft (44; 144) configured to be concentrically arranged relative to the elevation axis (Z1) so as to allow movement of individual
10 elements of the set of elements (42; 142) about said shaft (44; 144) in connection to elevation movement of the weapon (20) about the elevation axis (Z1).
2. The arrangement according to claim 1, wherein the feeding chute (40; 140), at the end opposite to the end connected to the weapon (20), is
15 configured to be fixedly attached to a guiding chute (50, 60) for guiding the ammunition (A) from a magazine (M) to the feeding chute (40; 140).
3. The arrangement according to claim 1 or 2, wherein the feeding chute (40; 140) comprises a first end element (42e1; 142A) configured to be closest to the weapon (20), the first end element being configured to be pivoted about
20 the shaft (44; 144) corresponding to the elevation movement of the weapon (20) about the elevation axis (Z1).
4. The arrangement according to any of claims 1-3, wherein the feeding chute (40; 140) comprises a second end element (42e2; 142E) configured to be furthest away from the weapon (20), the second end element (42e2; 142E)
25 being configured to be essentially fixed so that it is at the same position independently of elevation angle of the weapon (20) thus connected to the feeding chute (40; 140).

5. The arrangement according to claim 4, wherein the elements of the set of elements (42; 142) between the first end element (42e1; 142A) and the second end element (42e2; 142E) are gradually mutually displaceable.
6. The arrangement according to any of claims 1-5, wherein the individual elements movable about said shaft (44; 144) are configured to be rotated about the shaft (44; 144) a certain angle relative to an adjacent element so as to allow feeding of ammunition (A) through the feeding chute (40; 140) at all elevation angles of the elevation device (30).
7. The arrangement according to any of claims 1-6, the feeding chute being configured to provide at least one channel by means of said elements, through which at least one channel ammunition is configured to be fed, wherein the individual elements movable about said shaft (144) are configured to be arranged a certain distance relative to each other in the axial direction of said shaft (144), wherein the feeding chute (140) comprises a gliding arrangement (200) comprising a set of gliding members (210, 220, 230, 240, 250, 260, 270, 280) arranged in connection to the individual elements (142A, 142B, 142C, 142D, 142E) and configured to run in the feeding direction so as to facilitate feeding of ammunition through the respective individual elements of the feeding chute (140).
8. The arrangement according to claim 7, wherein individual gliding members of the gliding arrangement (200) comprises gliding rails overlappingly arranged in connection to individual elements so as to allow relative movement of said gliding rails for facilitating gradual mutual displacement of individual elements of the set of elements (142) when rotated about said shaft (144).
9. The arrangement according to any of claims 1-6, the feeding chute having a connection side (40e; 140e) for connecting the feeding chute to the weapon 20, and an opposite receiving side (40f; 140f), the feeding chute having a front side (40c; 140c) essentially facing the firing direction of the weapon, when the feeding chute is connected to the weapon (20), and an opposite rear side (40d;

140d), wherein the arrangement comprises a rotation limit arrangement (40t, 48; 300) arranged in connection to the front side or rear side of the feeding chute configured to limit rotation of the individual elements about said shaft (44; 144), wherein the rotation limit arrangement comprises tracks in
5 connection to individual elements of said set of elements, said tracks running in a direction essentially orthogonal to the extension of the shaft (144) so as to facilitate said limited rotation of the individual elements about said shaft (44; 144).

10. The arrangement according to claim 9, wherein the rotation limit
10 arrangement comprises a set of distance members (48; J12, J23, J34, J45) configured to connect said set of elements (42; 142) so as to limit the rotation of the individual elements about said shaft (44; 144).

11. The arrangement according to any of claims 4-10, wherein the second end
15 element (42e2; 142E) furthest away from the weapon (20) is configured to have an angle (β) within a range between the maximum elevation angle (α_1) and minimum elevation angle (α_2) of the weapon (20).

12. The arrangement according to any of claims 1-11, wherein the set of
elements (42; 142) are pivotably journaled about said shaft (44; 144).

13. The arrangement according to any of claims 1-12, wherein the feeding
20 chute (40; 140) comprises an upper channel (C1) for feeding ammunition (A) and a lower channel (C2) for feeding ammunition (A), said shaft (44; 144) being arranged between the upper and lower channel.

14. The arrangement according to any of claims 1-13, wherein the feeding
chute (40; 140), in connection to said one end of the feeding chute (40; 140),
25 comprises a fastening arrangement for attaching the feeding chute (40; 140) to the weapon (20).

15. The arrangement according to any of claims 2-14, wherein the ammunition
(A) is configured to be guided from an essentially upright position in the

magazine to an essentially lying position at the feeding chute via the guiding chute (50, 60).

16. The arrangement according to any of claims 1-15, wherein the arrangement is intended for a vehicle mounted weapon system (C), the
5 weapon system (C) comprising the weapon (20) mounted to a turret (10) via the elevation device (30).

17. The arrangement according to any of claims 2-16, wherein the arrangement comprising the feeding chute (40; 140), and the guiding chute (50, 60) to which the feeding chute (40; 140) is connected are configured to be
10 arranged within a turret (10) of a vehicle mounted weapon system (C) for which the arrangement is intended, the weapon system (C) comprising the weapon (20) mounted to a turret (10) via the elevation device (30).

18. A vehicle (V) comprising an arrangement for feeding ammunition (A) from a magazine to a weapon (20) of a weapon system mounted on the vehicle
15 according to any of claims 1-17.

19. A vehicle according to claim 19, wherein the vehicle is a tracked vehicle.