

**The practice of using  
the “Lepestok” PFM-1 and PFM-1C mines by the  
Ukrainian Armed Forces  
in the territory of the DPR**

*REPORT*

*Donetsk 26.09.2022*

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## PREAMBLE

On July 30, 2022, the first remote mining of the center of Donetsk took place. Thus, at about 21:30 (MSK) “Lepestok” PFM mines were found in the Voroshilovskiy District

- at the intersection of Vatutin Avenue and Chelyuskintsev Street;
- at the intersection of Universitetskaya Street and Mira Avenue;
- at the intersection of Universitetskaya Street and Oreshkov Lane;
- at the intersection of Shchors Street and B. Khmel'nitsky Avenue;
- in Lubavin Street;
- nearby the Donbass Arena.

This is evidenced by a lot of footage taken by war correspondents<sup>1</sup> and numerous amateur videos posted by the residents of Donetsk on social networks<sup>2</sup>. This event resulted in widespread dissemination of information about the use of “Lepestok” PFM-1 anti-personnel mines in densely populated residential areas.

On August 2, 2022, First Deputy Permanent Representative of the Russian Federation to the UN Dmitry Polyansky informed that the Russian party had sent a letter to UN Secretary General António Guterres and UN Security Council President Zhang Jun with additional information about Ukrainian mining of settlements in the Donbass with “Lepestok” PFM-1 anti-personnel mines.<sup>3</sup>

On August 3, 2022, during a press conference, UN Secretary-General António Guterres condemned the use of “Lepestok” mines by the Ukrainian Armed Forces in the Donbass. “The protection of civilians is a fundamental element in any conflict, — the UN Secretary General said.<sup>4</sup>

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<sup>1</sup> I counted 10 “Lepestok” mines, it is not known how many of these there are on the sidewalks and in the yards (published on 30.07.2022) Astrakhan War Correspondent. URL: <https://t.me/astrahandm/4733> (accessed on 25.09.2022).

<sup>2</sup> At “Izumrud” now (published on 30.07.2022) Telegram-channel Typical Donetsk Telegram channel. URL: <https://t.me/itsdonetsk/23997> (accessed on 05.09.2022).

<sup>3</sup> Russia sent the UN Secretary General data on the “Lepestok” mines in the Donbass (published on 02.08.2022) RBC website. URL: <https://www.rbc.ru/rbcfreenews/62e8bc4d9a794717674b9e4e> (accessed on 25.09.2022).

<sup>4</sup> UN Secretary General Guterres condemned the use of “Lepestok” mines by the Ukrainian military (published on 03.08.2022) Rambler news. URL: <https://news.rambler.ru/conflicts/49113065-gensek-oon-guterresh-osudil-primenenie-ukrainskimi-voennymi-min-lepestok/> (accessed on 25.09.2022).

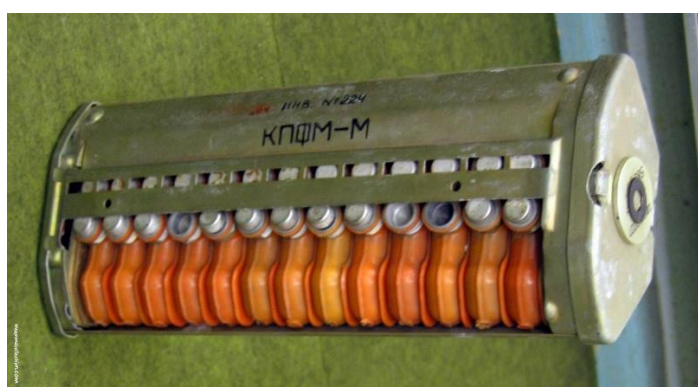
## “INCUBATOR” 9M27K3 Rocket Projectile

9M27K3 Rocket projectile is intended to counter enemy infantry. It is equipped with a 9H128K3 warhead and a TM-120 tube. The length of such a projectile is less than 5,18 m, take-off weight being 270 kg. The payload warhead weighs 89.5 kg. In terms of its firing range, the Incubator did not differ from other “Uragan” shells and made it possible to deliver mines to a range of 10 to 35 km.

Inside the 9H128K3 head part, twelve KPFM-1M cassettes are placed in three tiers longitudinally; there is an expelling charge next to them. Each cassette contains 26 “Lepestok” PFM-1 anti-personnel mines. In total, the rocket carries 312 mines. On the descending part of the trajectory, the projectile must drop the cassettes, after which they open up and scatter their contents over the terrain.<sup>5</sup>



*Fig. 1 - Dummy 9M27K3 projectile with anti-personnel mines.*



*Fig. 2 - KPFM-1M cassette with “Lepestok” anti-personnel mines.*

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<sup>5</sup> Mine-laying rocket projectiles for the use with Uragan MLRS. Weapons Collection website. URL: <http://weaponscollection.com/26/13091-reaktivnye-snaryady-minirovaniya-dlya-ispolzovaniya-rszo-uragan.html> (accessed on 25.09.2022).

## “Lepestok” PFM-1 HIGH EXPLOSIVE ANTI-PERSONNEL LAND MINE

“Lepestok” PFM-1 (high-explosive anti-personnel mine) is a Soviet-made pressure-action anti-personnel mine; these mines are commonly referred to as *Butterfly mines* or *Green Parrots*. It is an almost exact copy of the US BLU-43/B “Dragontooth” air-dropped anti-personnel land mine. It was accepted for service in the Soviet Army. This landmine exists in two versions: PFM-1 and PFM-1S. The first version of the mine does not have a self-destruction device, the second version is equipped with a device that provides self-destruction of the mine by blasting after 1-40 hours from the moment of installation (the self-destruction time depends on the ambient temperature). Externally, these two versions of mines differ only in a clearly distinguishable letter “S” on the wing of the PFM-1S mine. This mine can be installed on the ground only by means of remote mining.

During the explosion of a mine, a person gets injuries due to the destruction of the lower leg. The explosion is made at the time when the foot stamps on the mine target sensor. Currently, the production of PFM is discontinued.

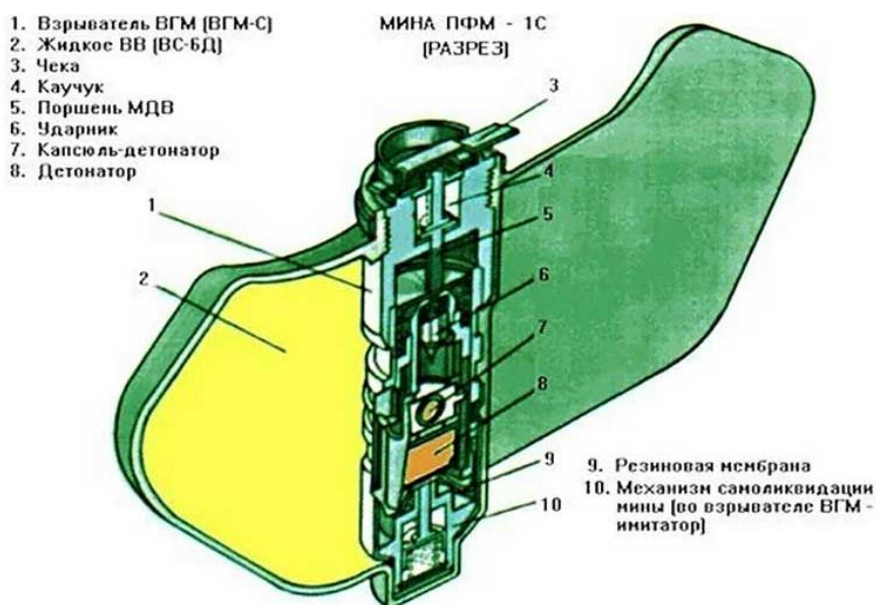


Fig. 3 – “Lepestok” PFM-1 mine<sup>6</sup>.

<sup>6</sup> “Lepestok” PFM-1 anti-personnel mine (published on 25.09.2022) Zhivuchiy.rf website. URL: <https://живучий.рф/боевое-охотничье-пневматическое-оружие/ustroystva/protivopehotnaya-mina-lepestok/> (accessed on 25.09.2022).

## THE FACTS OF USING “LEPESTOK” PFM-1 LAND-MINES

The first information about the use of banned “Lepestok” PFM-1 anti-personnel mines by UAF in the territory of the Donetsk People’s Republic appeared on March 6, 2022 during the battles for Mariupol<sup>7</sup>.

As of September 25, 2022, one can talk about at least 66 cases of mining of settlements in the DPR with “Lepestok” PFM-1 mines, the last of which occurred on August 29, 2022.

The cities of the DPR were mined by the remote mining method using the 9K57 Uragan MLRS. This is indicated by multiple ammunition debris. Let us consider some cases.

The tail section of the Uragan MLRS on the playground in Donetsk, 43 Tereshkova St. was found on August 02, 2022<sup>8</sup>. At the same time, 300 meters away from the playground near the “Leader” Ice Palace, which is located in Donetsk, 39A Tereshkova St., “Lepestok” PFM-1 mines were also found by local residents.<sup>9</sup> Also, local residents posted a video on the network, where the element fastening cassettes with the “Lepestok” land-mines inside the rocket body, which is a bright yellow metal object, is clearly visible<sup>10</sup>. The same object was found on the balcony of one of the residential buildings in Tereshkova Street<sup>11</sup>.

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<sup>7</sup> Statement by the official representative of the PM DPR on the situation as of 10:30 06.03.2022 (published on 06.03.2022) DPR People’s Militia URL: [https://t.me/nm\\_dnr/6749](https://t.me/nm_dnr/6749) (accessed on: 26.09.2022).

<sup>8</sup> Children’s playground in 43, Tereshkova Street, Tekstilschik residential community (published on 02.08.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/24302> (accessed on 25.09.2022).

<sup>9</sup> “Lepestok” mines scattered near the “Leader” Ice Palace in Tekstilschik (published on 02.08.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/24299> (accessed on 25.09.2022).

<sup>10</sup> Also, Incoming strike in Tekstilschik this morning (published on 02.08.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/24307> (accessed on 25.09.2022).

<sup>11</sup> Tereshkova Street, this is what dropped onto the balcony (published on 02.08.2022) Tekstilschik residential area Telegram Channel. [Donetsk]» URL: [https://t.me/tekstilshik\\_dn/3716](https://t.me/tekstilshik_dn/3716) (accessed on 25.09.2022).





*Fig. 4 – The result of mine laying in Tereshkova Street.*

Another 9M27K3 rocket projectile cassette fastener was found on July 30, 2022 at about 16:00 (MSK) by residents of Donetsk in 72, Savrasov St<sup>12</sup>.



*Fig. 5 - A fragment of Uragan MLRS in 72, Savrasov St.*

Immediately after that, footage of the remaining almost entire bow of the Uragan MLRS and “Lepetok” PFM-1 mines that were located nearby at the address 34A, Semashko St appeared on local social networks.<sup>13</sup>

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<sup>12</sup> About 40 minutes ago there was an incoming strike in 72, Savrasov St., in Kirovskiy District, Donetsk (published on 30.06.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/23930> (accessed on 25.09.2022).

<sup>13</sup> In the vicinity of School No. 78 now (published on 30.06.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/23933?single> (accessed on 25.09.2022).





*Fig. 6 - A fragment of Uragan MLRS in 34A, Semashko St.*



Fragments of the Uragan MLRS projectile casing were found in the center of Donetsk, along with the cassette case KPFM-1S<sup>14</sup>.



*Fig. 7 – KPFM-1S cassette casing and fragments of a Uragan MLRS projectile in the center of Donetsk.*

As for the affected civilians of the DPR, as of September 26, 2022, at least 70 people were injured by “Lepestok” PFM-1 mines in the cities of the Republic.

In most cases, people got wounds in the form of traumatic amputations of the foot or hand.

Thus, for example, on August 2, 2022, the minor Artyom B. lifted the “Lepestok” from the ground, and it burst in his hands, damaging the teenager’s hands.

Tatyana Viktorovna Volkovskaya, born in 1952. On August 11, 2022, she stepped on a mine while returning home from work. As a result, the woman lost her left foot.<sup>15</sup>

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<sup>14</sup> Butterfly mines that were scattered in the center of Donetsk seem to have a self-destructive mechanism (published on 31.07.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/24066> (accessed on 25.09.2022).

<sup>15</sup> A woman and a child hit by “Lepestok” mine in Donetsk (published on 14.08.2022) VKontakte Social Network. URL: [https://vk.com/video255744597\\_456271923](https://vk.com/video255744597_456271923) (accessed on 25.09.2022).



*Fig. 8 – The hands of Artyom B. immediately after the explosion of the “Lepestok” mine.*



*Fig. 9 - Tatyana Viktorovna Volkovskaya, born in 1952.*

The statistics of the use of “Lepestok” PFM-1 mines is presented in the form of a graph in Figure 10. This does not consider the early cases of remote mining in Mariupol, but the general dynamics of events can be traced.

It can be seen that before the hype on the issue of “Lepestok” mines in the press (July 30) and the subsequent reaction of the UN Secretary General (August 3), the mining of DPR cities was used very actively, and then began to decline.

At the same time, 62 episodes of mine laying were recorded, most of them occurred within the territory of Donetsk. Considering that each 9M27K3 Incubator missile carries 312 mines, it can be argued that at least 15-20 thousand “Lepestok” PFM-1 mines were dropped on the city.

Donetsk Mayor Oleksiy Kulemzin claimed that it was impossible to completely clear Donetsk after the Ukrainian military dropped numerous “Lepestok” anti-personnel mines on the city.<sup>16</sup>

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<sup>16</sup> The mayor announced the impossibility of demining Donetsk from “Lepestok” mines (published on 14.09.2022) REN TV website. URL: <https://ren.tv/news/v-mire/1023201-mer-zaiavil-o-nevozmozhnosti-razminirovaniia-donetska-ot-min-lepestkov> (accessed on 25.09.2022).



Thus, even after a temporary cessation of the practice of remote mining the densely populated residential areas with “Lepestok” PFM-1 mines, civilians continued to be injured by these devices.

Moreover, from September 26, 2022, the UAF resumed the practice of remote mining of Donetsk with “Lepestok” PFM-1 mines. Mines were found in the Petrovskiy<sup>17</sup> and Kirovskiy<sup>18</sup> Districts of the city.

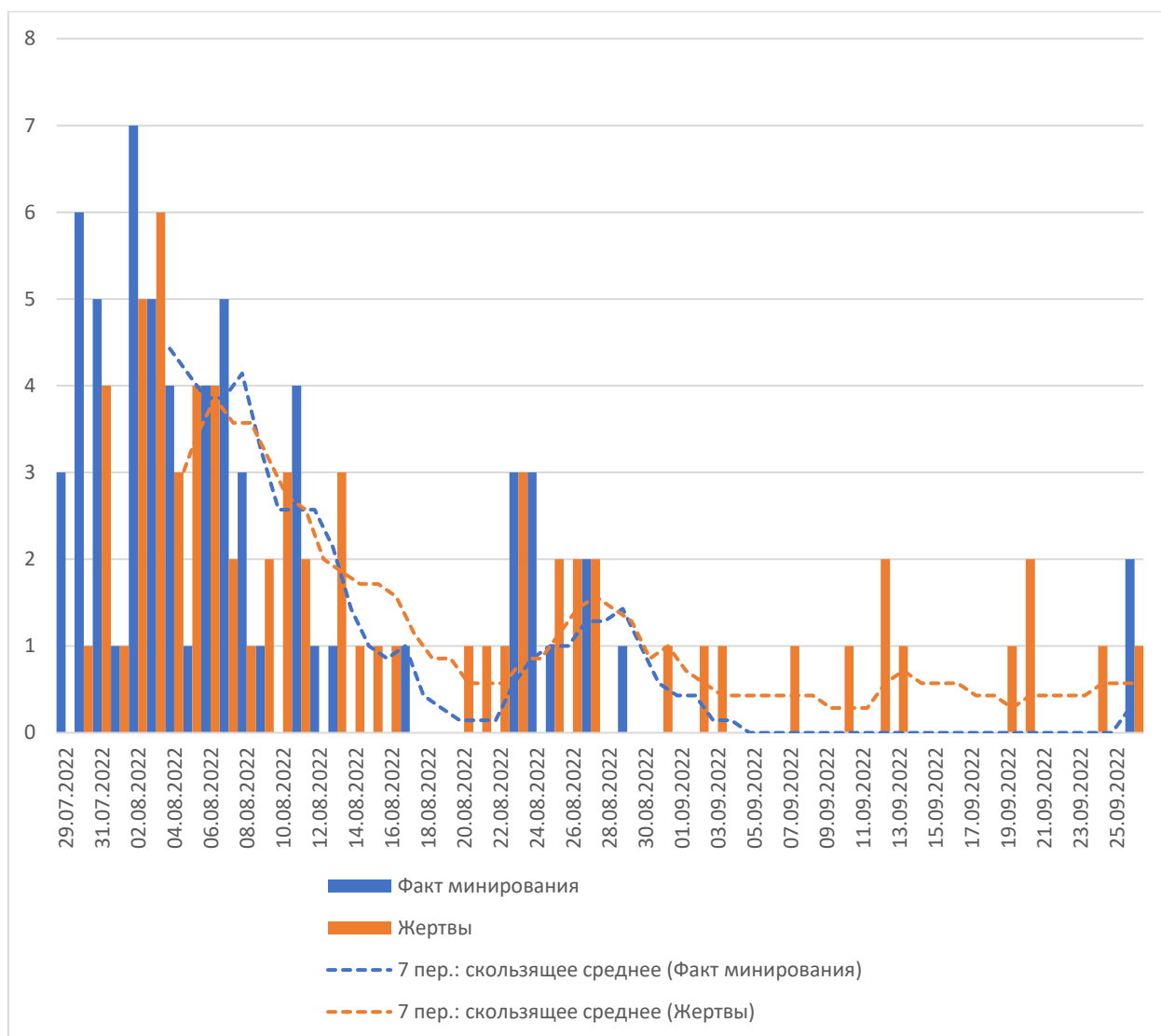


Fig. 10 – Application of “Lepestok” PFM-1 mines in the DPR.

<sup>17</sup> In Pobediteley St., in the Petrovsky district of Donetsk, “Lepestok” mines were found in Donetsk currently (published on 30.05.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/32211> (accessed on 26.09.2022).

<sup>18</sup> It is reported that Butterfly mines are scattered in 35 Semashko Avenue (published on 26.09.2022) Typical Donetsk Telegram Channel. URL: <https://t.me/itsdonetsk/32174> (accessed on 26.09.2022).

## LEGAL QUALIFICATIONS

The use of “Lepestok” PFM-1 and PFM-1C anti-personnel mines violates, primarily, **Article 1** of the **Convention “On the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction”** dated December 3, 1997 (Ottawa Convention), which inter alia prohibits **the use** of anti-personnel mines under any circumstances.

Moreover, the above Article binds each State Party “to **destroy** or ensure the destruction of all stockpiled anti-personnel mines it owns or possesses, or that are under its jurisdiction or control, as soon as possible but **not later than four years** after the entry into force of this Convention for that State Party”.

For Ukraine, the Ottawa Convention entered into force on June 1, 2006.

Thus, the entire existing stock of anti-personnel mines was to be destroyed by the Ukrainian state no later than June 1, 2010. However, this did not happen.

Additionally, the use of “Lepestok” anti-personnel mines in densely populated areas violates **Protocol II to the Geneva Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to be Excessively Injurious or to Have Indiscriminate Effects** dated October 10, 1980.

In compliance with **item 8 of Article 3** of the Protocol the indiscriminate use of mines is prohibited. Indiscriminate use is understood inter alia as any placement of mines: “which employs a method or means of delivery which cannot be directed at a specific military objective; or which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof”.

According to the established practice, **war crimes are grave breaches of international humanitarian law**. In this case, all acts that endanger protected persons or protected objects (civilians, medical institutions, etc.) are considered grave breaches. War crimes of a massive nature, with a large number of victims, are considered crimes against humanity, and are subject to the jurisdiction of international military tribunals rather than that of national military courts. Because

of their extreme graveness, there is no statute of limitations on actions for such crimes.

The indiscriminate mining of densely populated residential areas in the DPR resulted in the infliction of injuries on more than 70 civilians, which may indicate the widespread use of such practices and the need for international justice to intervene.



## ANNEXES

### *Annex 1*

*Table 1 – List of civilians affected by “Lepestok” PFM-1 mines within the territory of the DPR.*

<b>No.</b>	<b>Date</b>	<b>City</b>	<b>Gender</b>	<b>Year of birth</b>	<b>Type</b>
1	28.07.2022	Donetsk	Male	1985	Wounded
2	30.07.2022		Male	1954	Killed
3	31.07.2022	Donetsk	Male	1969	Wounded
4	31.07.2022	Donetsk	Male	1980	Wounded
5	31.07.2022	Donetsk	Male	1980	Wounded
6	31.07.2022	Donetsk	Male	1978	Wounded
7	01.08.2022	Donetsk	Male	1947	Wounded
8	02.08.2022	Donetsk	Male	1968	Wounded
9	02.08.2022	Donetsk	Male	2005	Wounded
10	02.08.2022	Donetsk	Male	2002	Wounded
11	02.08.2022	Donetsk	Female	2002	Wounded
12	02.08.2022	Donetsk	Male	1970	Wounded
13	03.08.2022	Donetsk	Male	1955	Wounded
14	03.08.2022	Donetsk	Male	1977	Wounded
15	03.08.2022	Donetsk	Male	1987	Wounded
16	03.08.2022	Donetsk	Male	1960	Wounded
17	03.08.2022	Donetsk	Male	1952	Wounded
18	03.08.2022	Makeyevka.	Male	1949	Wounded
19	04.08.2022	Donetsk	Male		Wounded
20	04.08.2022	Donetsk	Male	1947	Wounded
21	04.08.2022	Donetsk	Female	1951	Wounded
22	05.08.2022	Donetsk	Male	1957	Wounded
23	05.08.2022	Donetsk	Male	1988	Wounded
24	05.08.2022	Donetsk	Male	1983	Wounded
25	05.08.2022	Donetsk	Male	1958	Wounded
26	06.08.2022	Donetsk	Male	1973	Wounded
27	06.08.2022	Donetsk	Female	1935	Wounded
28	06.08.2022	Donetsk	Male	1964	Wounded
29	06.08.2022	Donetsk	Male	1968	Wounded
30	07.08.2022	Donetsk	Male	1959	Wounded
31	07.08.2022	Makeyevka.	Male	1979	Wounded
32	08.08.2022	Donetsk	Male	1952	Wounded
33	09.08.2022	Donetsk	Female	1958	Wounded
34	09.08.2022	Donetsk	Male	1950	Wounded
35	10.08.2022	Donetsk	Male	1987	Wounded
36	10.08.2022	Donetsk	Male	1952	Wounded
37	10.08.2022	Donetsk	Male	2007	Wounded
38	11.08.2022	Donetsk	Female	1958	Wounded
39	11.08.2022	Donetsk	Male	1980	Wounded
40	13.08.2022	Donetsk	Male	1976	Wounded

Table 2 – List of civilians affected by “Lepestok” PFM-1 mines within the territory of the DPR (continued).

<b>No.</b>	<b>Date</b>	<b>City</b>	<b>Gender</b>	<b>Year of birth</b>	<b>Type</b>
41	13.08.2022	Donetsk	Female	1965	Wounded
42	13.08.2022	Donetsk	Female	1948	Wounded
43	14.08.2022	Donetsk	Female	1952	Wounded
44	15.08.2022	Donetsk	Male	1976	Wounded
45	16.08.2022	Donetsk	Male	1972	Wounded
46	20.08.2022	Donetsk	Male	1955	Wounded
47	21.08.2022	Donetsk	Male	1964	Wounded
48	22.08.2022	Donetsk	Male	1960	Wounded
49	23.08.2022	Donetsk	Female	1997	Wounded
50	23.08.2022	Donetsk	Male	1989	Wounded
51	23.08.2022	Donetsk	Male	1971	Wounded
52	25.08.2022	Donetsk	Male	1956	Wounded
53	25.08.2022	Novoluhanskoye	Female	1956	Wounded
54	26.08.2022	Donetsk	Male	1954	Wounded
55	26.08.2022	Donetsk	Female	1958	Wounded
56	27.08.2022	Donetsk	Male	1958	Wounded
57	27.08.2022	Donetsk	Male	1956	Wounded
58	31.08.2022	Donetsk	Male	1962	Wounded
59	02.09.2022	Donetsk	Male	1956	Wounded
60	03.09.2022	Donetsk	Male	1957	Wounded
61	07.09.2022	Donetsk	Male	1988	Wounded
62	10.09.2022	Donetsk	Male	1983	Wounded
63	12.09.2022	Donetsk	Male	1983	Wounded
64	12.09.2022	Horlivka	Male	1985	Wounded
65	13.09.2022	Donetsk	Male	1986	Wounded
66	19.09.2022	Donetsk	Male	1953	Wounded
67	20.09.2022	Donetsk	Male	1954	Wounded
68	20.09.2022	Donetsk	Male	1987	Wounded
69	24.09.2022	Donetsk	Female	1969	Wounded
70	26.06.2022	Donetsk	Female	1963	Wounded