

INTRODUCTION

INCOMING
MESSAGE

SEND

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David,

I can now say with some certainty that we have been able to complete our preliminary survey of the industrial and technological capabilities of the local Clan militaries. I have also been able to confirm that the recent disruptions in the Clan Homeworlds—whatever their nature was—have indeed severed all communications and trade between the worlds of the Pentagon and Kerensky Cluster, and the eight Inner Sphere Clans (including the Exiled Wolves and Nova Cats in that count). We are still awaiting word from the most distant operatives that we dispatched to the Deep Periphery, but I am confident that their findings will further reinforce what we are seeing on this end of things: the Homeworlds have indeed ousted their invader brothers for reasons we can only guess at.

That said, it appears that the local Clans have turned toward upgrading and expanding their local infrastructure, now that they have been cut off from the more secure caches and production facilities of their original enclaves, and the pace is close to frantic. Whether fearing predations by one another or disruption from the Homeworlds—or perhaps even from the nations of the Inner Sphere—our Clan “neighbors” are struggling to bring a number of heretofore experimental technologies and designs into production to strengthen their war-battered humans. This has forced them to look to many facilities in their territories that were only partially brought up to Clan specs (if at all).

Attached are thirteen noteworthy experimental and prototype designs the various Clans have been working on most recently. Most are actually in battlefield-ready form—testament to a mentality that universally believes in doing nothing halfway—but have yet to enter mainstream production due to strained supply lines, process refinements, or various other disruptions. You should find many of the designs interesting with respect to what weapons and concepts the Clans are most actively exploring. I know I certainly have!

A more extensive analysis should be on your desk by next week. Until then, David, take care!

Sincerely,

—General Albrecht Hoff, RAF/DMI, 16 November 3081

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HOW TO USE THIS BOOK

The 'Mechs, combat vehicles, ProtoMechs, fighters, and battle armor described in *Experimental Technical Readout: Clans* provide players with a sampling of the various custom designs that have arisen in the technical divisions of the military manufacturers among the Inner Sphere Clans. The designs featured in this book reflect limited-run prototypes and "one-offs" that have yet to reach full factory production—and perhaps never will.

The rules for using these units in *BattleTech* game play can be found in *Total Warfare*, while the rules for their construction can be found in *TechManual*. However, the experimental nature of these designs also draws upon the Experimental-level rules presented in *Tactical Operations*. Thus, none of the units featured in this volume are considered tournament legal, and their use in introductory games is discouraged. Furthermore, the extreme rarity of these machines is such that none of them should occur in a *BattleTech* campaign as a chance encounter, but the capture or destruction of any one of these prototypes could be potential objective for *BattleTech* scenarios, tracks and role-playing adventures.

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CAT35XT009

STAR LEAGUE ERA



CLAN INVASION ERA



JIHAD ERA



SUCCESSION WARS ERA



CIVIL WAR ERA



DARK AGE ERA



COUGAR-XR

Field Testing Summation: Cougar Experimental Refit

Producer/Site: Olivetti Weaponry, Sudeten

Supervising Technician: Scientist Holman (Goodall)

Project Start Date: 3070

Non-Production Equipment Analysis:

- Inner Sphere Small Cockpit
- Partial Wing
- Laser-Reflective Armor
- ER Medium Pulse Laser
- Artemis V FCS

Overview

The *Cougar-XR* (Experimental Refit) appears to be a concept machine the Jade Falcons recently began toying with. Though it is based on the frame of the *Cougar* OmniMech, the extent of this refit is so extreme that our intelligence believes it to be incapable of employing modular, pod-mounted weaponry. In one instance, for example, Falcon technicians were observed having to dismantle several components of a misfiring missile launcher before the weapon itself could be detached from its mount—a process that took over an hour in the repair bays at Sudeten's refit wing of Olivetti Weaponry.

At a glance, the *Cougar* almost looks like a Land-Air 'Mech, and indeed it was rumors of Clan-made LAMs that drew our attention to this development. After all, reports of failed Jade Falcon LAMs on Huntress during the final days of the Clan war led many to believe the Falcons—and their fellow Clansmen—considered the concept a dead-end. Thus, a resumption of such a possible new Clan LAM unit came as some surprise. In truth, closer inspection revealed that the *Cougar-XR* was no fighter-BattleMech hybrid, but a standard 'Mech built around the added lift capabilities of a partial wing system. Using ordinary jump jets for a 'Mech its size, the *Cougar-XR* can fly for an additional sixty meters per leap in standard atmosphere, gaining almost the same mobility as it might otherwise achieve with improved jump jets for the same overall tonnage. The additional cooling capabilities of the wing system, however, provides a bonus that improved jets cannot deliver—providing the *Cougar-XR* the ability to launch a powerful alpha strike while executing a full jump, all at negligible heat.

The *Cougar's* weapons and armor are also enhanced. Its right arm mounts an extended-range pulse laser that offers more accurate energy damage than the conventional Clan ER medium laser, at virtually the same range. Twin, fifteen-tube LRM racks in the side torsos provide long-range support fire potential, with the enhanced accuracy of the Clans experimental Artemis V fire-control system. Protecting this entire chassis are seven tons of laser-reflective armor, likely installed based on the calculated belief that a 'Mech so light and so maneuverable will likely draw more fire from energy-based weapons such as pulse lasers and particle cannons than from ammo-hungry ballistics better used on heavier, harder prey.

Making room for all of these modifications clearly challenged even the Clans' engineering efficiency, but nowhere is this more apparent than in the ultra-cramped cockpit system the *Cougar-XR* employs. Undoubtedly based on Inner Sphere small cockpits, the Clan version takes the notoriously tight confines of their BattleMech control systems and makes them downright claustrophobic. This saves another ton of weight, but impairs even the

hard-trained Clan MechWarriors unfortunate enough to be assigned to one of these machines.

Overall, the technologies used in the *Cougar-XR's* design appear to be viable, especially given reports that many of the experimental technologies it employs may soon be entering the mainstream as the Jihad winds down. Nevertheless, less than a handful of these prototypes have been seen in the field to date. It thus remains unclear if the Olivetti factories in the Jade Falcon Occupation Zone will be upgraded to produce this particular model in the future, or something merely based on these principles.

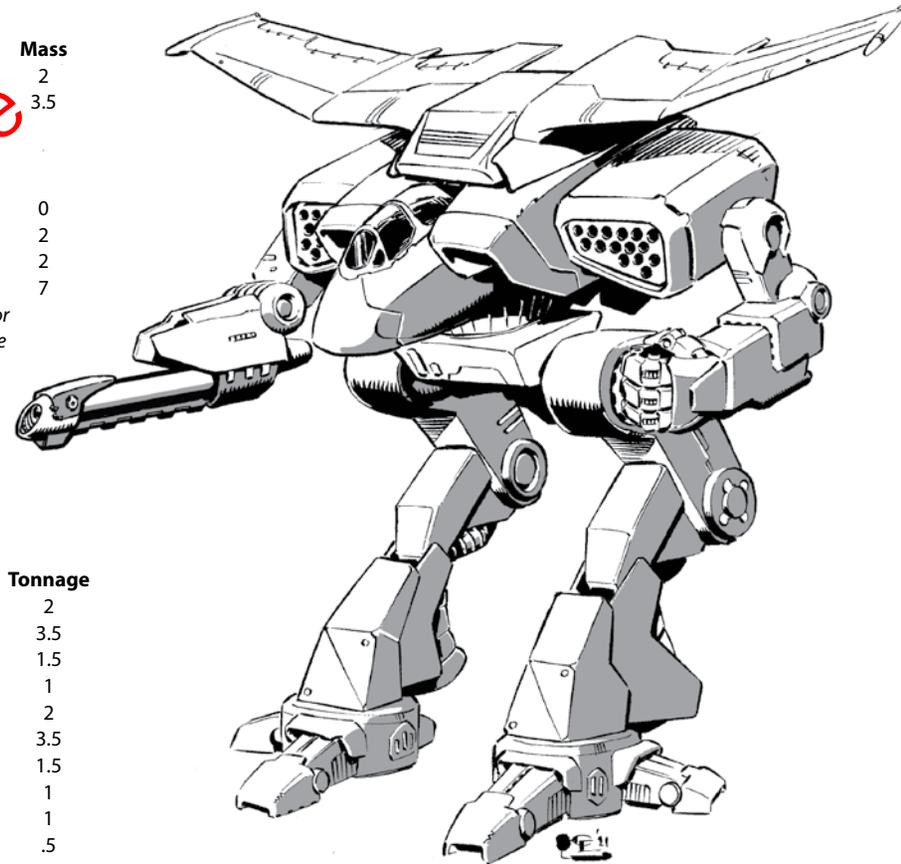
Note: *Partial Wing adds +2 Jump MP, and -3 heat per turn in Standard atmosphere. See p. 295, *TO* for additional rules. Features the following Design Quirks: Unbalanced, Prototype, Modular Weapons

Type: **Cougar-XR**
 Technology Base: Mixed Clan (Experimental)
 Tonnage: 35
 Battle Value: 1,783

Equipment

		Mass
Internal Structure:	Endo Steel	2
Engine:	175 XL	3.5
Walking MP:	5	
Running MP:	8	
Jumping MP:	5*	
Heat Sinks:	10, 20*	0
Gyro:		2
Cockpit (Small (IS)):		2
Armor Factor (Reflective):	112	7
	Internal Structure	Armor Value
Head	3	9
Center Torso	11	13
Center Torso (rear)		6
R/L Torso	8	11
R/L Torso (rear)		5
R/L Arm	6	12
R/L Leg	8	14

Weapons and Ammo	Location	Critical	Tonnage
ER Medium Pulse Laser	RA	2	2
LRM 15	RT	2	3.5
Artemis V FCS	RT	2	1.5
Ammo (LRM) 8	RT	1	1
Partial Wing*	RT/LT	6	2
LRM 15	LT	2	3.5
Artemis V FCS	LT	2	1.5
Ammo (LRM) 8	LT	1	1
Jump Jets	RL	2	1
Jump Jet	CT	1	.5
Jump Jets	LL	2	1



EXPERIMENTAL

URSUS-PR

Field Testing Summation: Ursus Prototype Refit

Producer/Site: Bergan Industries, Alshain

Supervising Technician: Technician Josef

Project Start Date: 3074

Non-Production Equipment Analysis:

Improved Heavy Medium Laser

CASE II

Inner Sphere Improved C³ Computer

Overview

Echoing the political and social amalgamation with the resident Rasalhagian population that has become so central to their non-military efforts, Clan Ghost Bear's engineers have apparently begun working to integrate Inner Sphere technologies into their military forces. At an R&D facility attached to the Bergan factories on Alshain, a small number of second-line BattleMechs have been set aside for use as experimental test-beds. One of the first fully operational results of this effort, debuting in 3075, was the *Ursus-PR* (Prototype Refit).

Based on the chassis of a first-generation *Ursus*, the *Ursus-PR* is built for close-range combat, either as a result of the Bears' experiences with urban resistance in the former Rasalhague Republic, or perhaps with the idea of deploying 'Mechs like these to defensive commands. It is also built to be a pack hunter, employing improved C3 computer technology likely derived from former ComStar parts stockpiles. The integrated C3 units can network the targeting and sensor data of up to six *Ursus-PR*s, granting them the ability to coordinate in even the most densely packed cities. (Interestingly enough, the Bears have built only five of these machines to date, demonstrating their preference for Clan-style organization at the expense of what would be a more optimum use of the C3i equipment.) A combined team of Rasalhagian and Ghost Bear engineers evidently smoothed out any difficulties arising from the use of Spheroid tech in an otherwise Clan design, as the *Ursus-PR*s seen while undergoing trials demonstrated few signs of malfunction.

The weaponry carried by this design is cutting-edge for Clan technology, but not exactly overpowering. Two heavy ProtoMech-scaled autocannons mounted in the right arm are useful against lighter 'Mechs, vehicles, or battle armor, but would hardly deter heavier 'Mechs, and these are backed up by a pair of torso-mounted improved heavy medium lasers, which deliver greater accuracy than older heavy medium lasers, but carry a significant explosive risk in the event of an armor breach. For additional firepower against conventional infantry, the *Ursus-PR* rounds out its weapons with a trio of anti-personnel Gauss rifles, and an extended-range flamer. Taken together, these weapons give the *Ursus-PR* an effective kill zone of over 200 meters, but the 'Mech is positively murderous at ranges of ninety meters or less.

Protecting the *Ursus-PR*, the Bears are using standard Clan-made ferro-fibrous armor, but this has been augmented with the use of CASE II for superior protection against internal damage should it suffer catastrophic damage to its more volatile components. This, combined with the use of a less bulky standard engine, ensures that withdrawal will remain an effective option if the *Ursus-PR* finds itself overwhelmed.

Type: **Ursus-PR**

Technology Base: Mixed Clan (Experimental)

Tonnage: 50

Battle Value: 1,194

Equipment

Internal Structure:

Engine:

Walking MP:

Running MP:

Jumping MP:

Heat Sinks:

Gyro:

Cockpit:

Armor Factor (Ferro):

163

Internal Structure

Head

Center Torso

Center Torso (rear)

R/L Torso

R/L Torso (rear)

R/L Arm

R/L Leg

200

4

6

0

10 [20]

2

3

163

3

16

7

12

5

8

12

Mass

5

8.5

2

3

8.5

Armor Value

9

25

7

18

5

15

23

Weapons and Ammo

Location

Critical

Tonnage

2 ProtoMech AC/8

RA

8

11

Ammo (PAC) 20

RT

2

2

CASE II

RT

1

.5

Improved Heavy Medium Laser

RT

2

1

ER Flamer

H

1

1

Improved C3 Computer (IS)

CT

2

2.5

Improved Heavy Medium Laser

LT

2

1

3 AP Gauss Rifles

LA

3

1.5

Ammo (AP Gauss) 80

LA

2

2

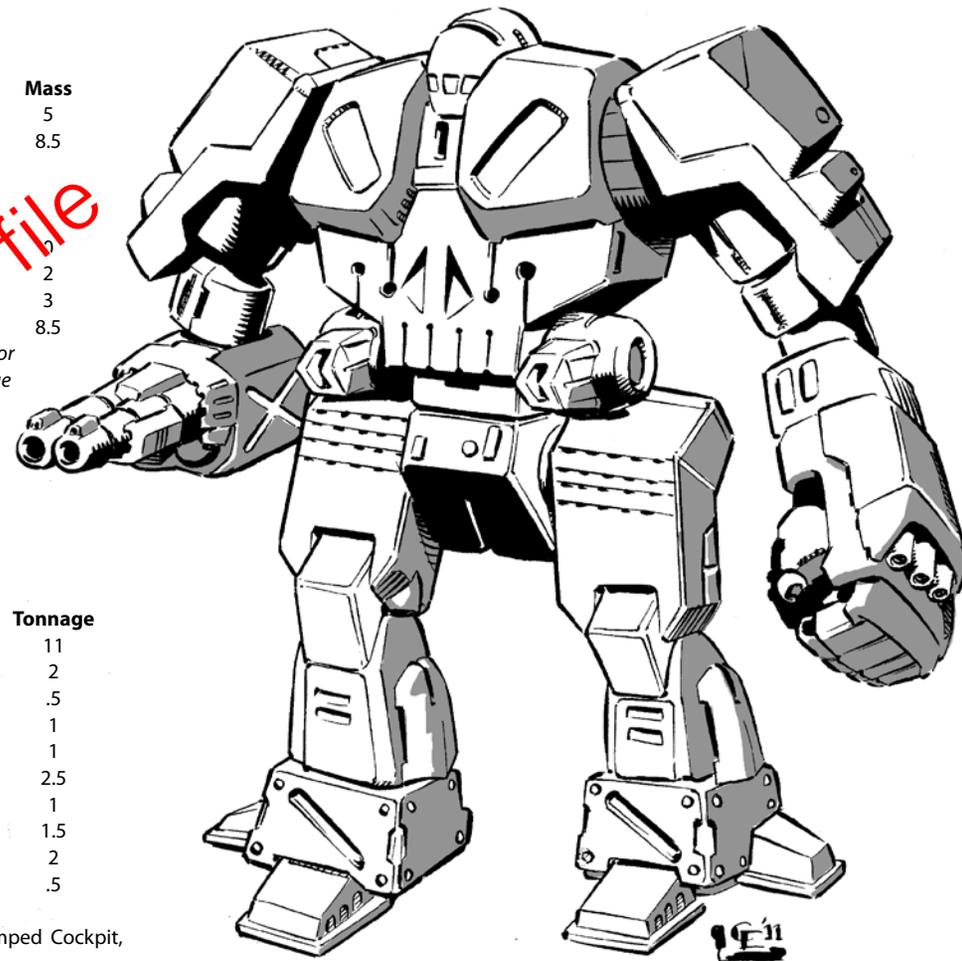
CASE II

LA

1

.5

Notes: Features the following Design Quirks: Camped Cockpit, Prototype, Protected Actuators



EXPERIMENTAL

MAD CAT III-X

Field Testing Summation: Prototype Mad Cat Experimental Refit

Producer/Site: Manufacturing Plant DSF-IT1/Itabaiana

Supervising Technician: Senior Tech Valeria

Project Start Date: 3076

Non-Production Equipment Analysis:

- Endo-Composite Structure
- Ferro-Lamellor Armor
- Artemis V FCS

Overview

When we learned of the Diamond Sharks' development of a new medium weight BattleMech, it at first looked like another sign of typically lax Clan security. Tapping a cache of new advanced-tech supplies only recently developed at their Twycross facilities, and shipping them around the fringe of Clan-controlled space to their newer refit plants on Itabaiana in the Draconis Combine, it did not take long for the shipments to attract attention, given their heavy fighter escort and armed transports. Slipping agents onto their trail and eventually onto Itabaiana itself took considerable efforts, as they risked detection by multiple counter-intel agents working for at least three governments.

One can therefore imagine those agents' total shock when they were swiftly captured by Diamond Shark Watch personnel and escorted to their very objective—all under the guidance of a smiling Diamond Shark merchant factor.

The prototypes presented to our agents were impressive. Based on the popular silhouette of the *Timber Wolf* OmniMech—still referred to by many agencies today by its Inner Sphere name of *Mad Cat*—the so-named *Mad Cat III* weighed in a full twenty tons lighter than the iconic Omni. Boasting a land speed some twenty percent faster, it also carried twin twenty-tube LRM launchers and a total of eight extended-range laser weapons ranging from the ultra-small micro lasers to the more powerful mediums. As our agents listened, the Sharks' representative explained that the LRMs were enhanced with cutting-edge Artemis V fire control systems for greater accuracy, and each carried enough missiles for two minutes of sustained fire.

Noting the bulkier armor design, the Sharks further extolled the virtues of the Clans' brand-new ferro-lamellor armor system, and how it protected a skeleton of lightweight, low-bulk endo composite. The ten tons of this experimental armor, our agents learned, could provide protection far superior to any armor on the markets today. By way of demonstration, the Sharks allowed our men to witness an attack by a *Vulture (Mad Dog)* in Alpha configuration. After unloading a full volley of almost forty SRMs and several blasts from its LB-X autocannon, the *Vulture* left the experimental *Mad Cat III* nearly unscathed. The LB-X cluster munitions simply bounced off the miniature *Mad Cat's* hide with little more than paint damage and scorch marks to show for their effort, while the SRMs merely flaked away small scraps of armor wherever they landed. Only when the *Vulture* pilot switched his autocannon to solid burst rounds and fired his PPC did the mini-*Mad Cat* show any real signs of armor loss.

The Sharks ultimately allowed our men to return unharmed, armed with the specs on their newest technologies. Though the entire event may well have been staged, enough separate reports on similar Clan developments have reached us to confirm the technology and its capabilities are very real. What could still be a set-up, however, was the too-good-to-be-true offer from the Sharks to share their new project with our forces—for a price they have yet to name, of course.

Type: **Mad Cat III-X**

Technology Base: Clan (Experimental)

Tonnage: 55

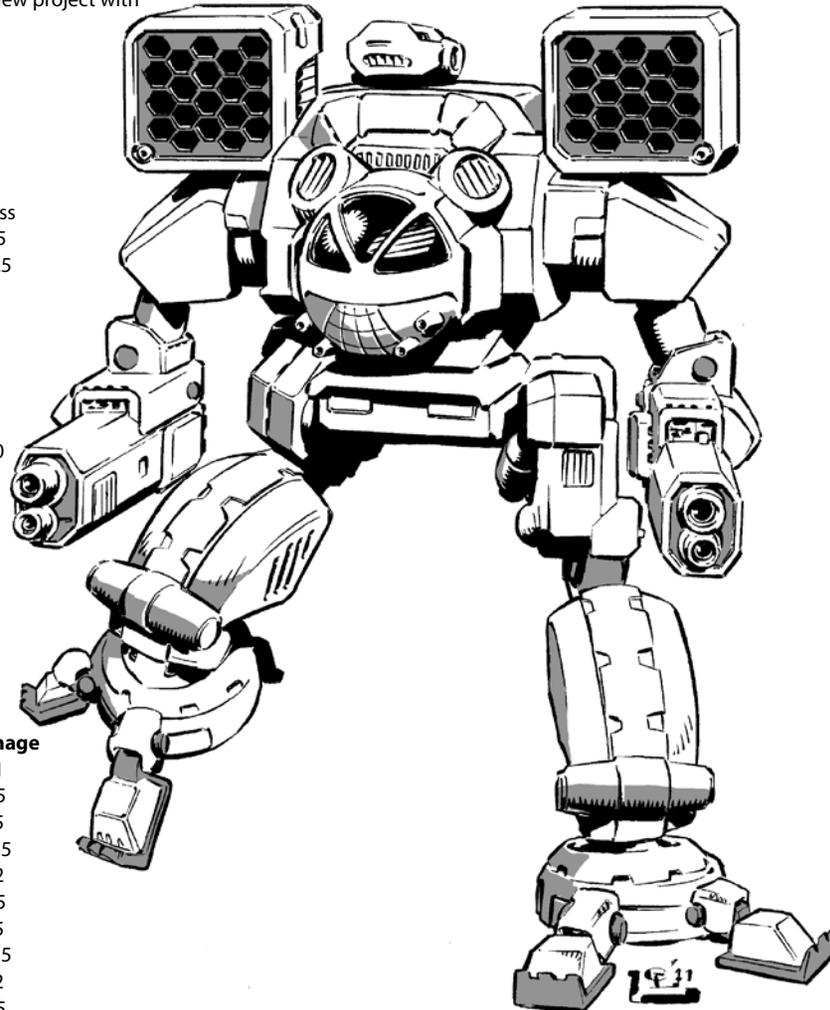
Battle Value: 2,232

Equipment

	Endo Composite	Mass
Internal Structure:	330 XL	4.5
Engine:	330 XL	12.5
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	
Heat Sinks:	10 [20]	0
Gyro:		4
Cockpit:		3
Armor Factor (Lamellor):	140	10
	Internal Structure	Armor Value
Head	3	9
Center Torso	18	19
Center Torso (rear)		8
R/L Torso	13	15
R/L Torso (rear)		7
R/L Arm	9	12
R/L Leg	13	18

Weapons and Ammo

	Location	Critical	Tonnage
ER Medium Laser	RA	1	1
ER Small Laser	RA	1	.5
LRM 20	RT	4	5
Artemis V FCS	RT	2	1.5
Ammo (LRM) 12	RT	2	2
2 ER Micro Lasers	RT	2	.5
LRM 20	LT	4	5
Artemis V FCS	LT	2	1.5
Ammo (LRM) 12	LT	2	2
2 ER Micro Lasers	LT	2	.5
ER Medium Laser	LA	1	1
ER Small Laser	LA	1	.5



Notes: Features the following Design Quirks: Difficult to Maintain, Prototype

HA OTOKO-HR

Field Testing Summation: Ha Otoko Hybrid Refit

Producer/Site: Unknown (Presumably mobile)

Supervising Technician: Unknown

Project Start Date: 3077?

Non-Production Equipment Analysis:

Inner Sphere Light Fusion Engine

Inner Sphere Small Cockpit

Inner Sphere Double Heat Sinks

Overview

Another curious development the Diamond Sharks are reportedly working on comes from our sources in the Draconis Combine. Unlike the discovery of the *Mad Cat III-X*, this one was not “advertised” to us, but instead revealed by allied operatives in the Combine’s ISF, who have promised to share such information as part of our resource-exchange agreements.

Curiously, this Diamond Shark experiment mirrors efforts within the Inner Sphere to integrate Clan technologies. However, rather than focusing such efforts on powerful, but hard-to-come-by items such as C3 systems, the idea behind the so-named *Ha Otoko-HR* is apparently aimed at demonstrating the feasibility of using more common Inner Sphere components to maintain Clan machines in the Inner Sphere. This assessment comes from careful study of the specs for this hybrid BattleMech, and the relatively inconsequential effects of its Sphere-born technologies.

Starting with a basic, Clan-made *Ha Otoko* chassis, the Shark engineers kept the complications to a minimum; with this base design using standard internal structure and armor components easily made in either the Inner Sphere or Clan space, parts can be easily used or machined even on comparatively lower-tech worlds. The use of an Inner Sphere light fusion engine allows the *Ha Otoko* to achieve a decent land speed for a heavy ‘Mech, without racking up the resource cost of a Clan XL, and without risking the chance of incapacitation through destruction that comes with an Inner Sphere-made extralight. Moreover, for a mere 1.5 tons of additional weight and the same overall bulk within the chassis, the *Ha Otoko-HR* could upgrade its speed and power through the use of a Clan-made 325-rated XL engine. This means that a field refit that improves performance using Clan tech remains a viable option for damaged hybrid *Ha Otokos*. It would also be an option to swap out the Clan-made ‘Mech Mortar launchers this machine sports in its shoulders. Though a strange weapon choice even in the best of times, their use on a heavy fire support unit is not entirely pointless, but it is not entirely optimal—suggesting that this, too, is an experimental notion.

With the Inner Sphere-made engine also comes a Sphere-made cooling system, and thus the *Ha Otoko-HR* further reinforces the notion of a design purpose-built to survive off of existing Inner Sphere sources, rather than Clan supply lines. The full implications of this tack are many, and range from the possibility of the Sharks

planning a long campaign against Inner Sphere forces, or another possible marketing ploy to cross sell to Clan and Spheroid buyers, or even a long-term strategy intended to hedge their bets and ensure suitable supply sources in the event they never re-establish contact with the distant Homeworlds. This last theory looks best, especially in light of the suggested sale of advanced Clan technologies to our people. With few worlds at their disposal, but many resources to barter, the Sharks may be trying to establish allies and secure their own means to survive now that they apparently cannot go home again.

Type: **Ha Otoko-HR**

Technology Base: Mixed Clan (Experimental)

Tonnage: 65

Battle Value: 1,547

Equipment

Internal Structure:

Engine: 260 Light (IS)

Walking MP: 4

Running MP: 6

Jumping MP: 0

Heat Sinks: 12 [24] (S)

Gyro: 2

Cockpit (Small (IS)):

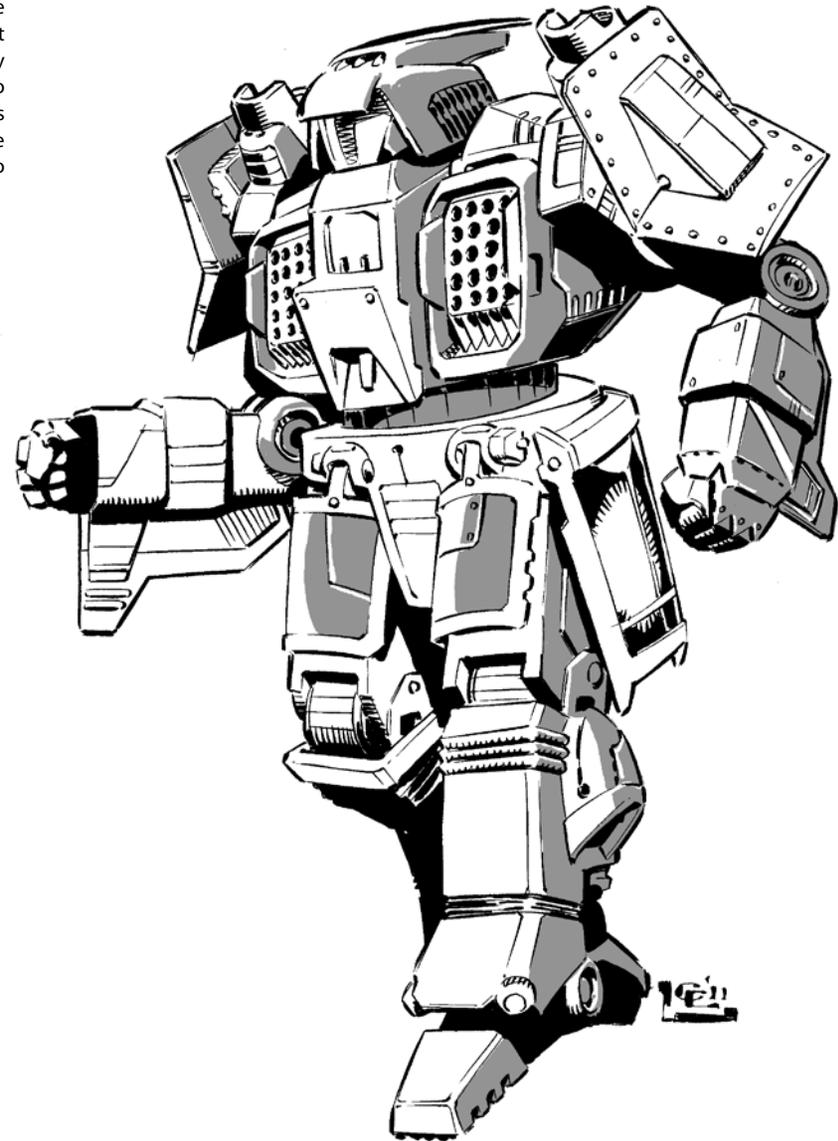
Armor Factor: 208

	Internal Structure	Armor Value
Head	3	9
Center Torso	21	31
Center Torso (rear)		10
R/L Torso	15	23
R/L Torso (rear)		7
R/L Arm	10	20
R/L Rear Legs	15	29

Weapons and Ammo

	Location	Critical	Tonnage
‘Mech Mortar/8	RA	3	5
Ammo (Mortar) 8	RA	2	2
LRM 20	RT	4	5
Ammo (LRM) 12	RT	2	2
LRM 20	LT	4	5
Ammo (LRM) 12	LT	2	2
‘Mech Mortar/8	LA	3	5
Ammo (Mortar) 8	LA	2	2

Notes: Features the following Design Quirks: Bad Reputation, Non-Standard Parts, Prototype, Protected Actuators



Sample file

EXPERIMENTAL