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HELLES EXPORTBIER/ DORTMUNDER EXPORT



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BY GORDON STRONG

HELLES EXPORTBIER/ DORTMUNDER EXPORT

Not all beer made in Dortmund is export, but it is the local style developed there as an alternative to the rapidly growing Pilsner-type beers.

GERMAN HELLES EXPORTBIER BY THE NUMBERS

OG:1.048–1.056
FG:1.010–1.015
SRM:4–7
IBU:20–30
ABV:4.8–6.0%



Photo by Charles A. Parker/Images Plus

Living in Ohio when I first became interested in craft beer many years ago, I thought Dortmund export was a fairly popular style. There were several made within the state, and it was easy to find imports from Dortmund. Unfortunately, many of those examples are no longer being made and the style has fallen out of favor in its home country. Which is a pity, since the style was what pioneering American beer writer Fred Eckhardt called, “one of the four great lager styles to evolve in continental Europe in the 19th century” – along with Pilsner, Munich, and Vienna lagers.

Past editions of the Beer Judge Certification Program (BJCP) Style Guidelines called this style Dortmund export, but it is now called German helles exportbier. Dortmund export might be a bit more understandable, but in its home city of Dortmund, it’s just called export. So the BJCP calls it by its name at home, with the additional clarification that the beer is German and that the style is pale (helles). Export is really a strength class of beer – a slightly stronger full or normal strength beer – so it can be helpful to describe the pale version. But you can call it a Dortmund, an export, a Dortmund export, or simply a Dort. Beer enthusiasts will know what you mean.

German helles exportbier is style 5C within the BJCP Style Guidelines, in the Pale Bitter European Beer category along with German leichtbier, Kölsch, and German Pilsners. But the best way to think of this beer in one sentence is a cross between a malty Munich helles and a bitter, hoppy German Pils, but a little stronger than each. It’s a balanced, malty, and hoppy, pale German lager with a fuller body and a little more alcohol.

HISTORY

Dortmund is a working-class city in

Nordrhein-Westfalen, in Northwest Germany. Northwest of Düsseldorf in the industrial Ruhr Valley, it is home to steelworkers and miners that was heavily damaged during World War II. Think of it kind of like the Pittsburgh of Germany. Or perhaps the Milwaukee, as it was also known as Germany’s (some sources say Europe’s) largest brewing city. Not all beer made in Dortmund is export, but it is the local style, originally developed there as an alternative to the rapidly growing Pilsner-type beers.

After the development of lagers in the early 1840s, the Kronen Brewery introduced bottom-fermented beer to Dortmund. But it was the Dortmund Union Brewery (DUB) who first made the style we think of as Dortmund export in the 1870s. The largest breweries by the 1970s were Dortmund Actien, Dortmund Union, Their, Hansa, Ritter, and Wenker Kronen. But by then the style was already in decline. Dortmund Actien Brauerei (DAB) is the last remaining large brewery, after most were acquired and consolidated by the large brewing conglomerate Radeberger/Oetker. Individual brands may survive, but the breweries are all within the same group.

I consulted Jean De Clerck for a perspective from the 1950s, when the style would still have been popular and the area recovering from World War II. His *Textbook of Brewing* devoted two paragraphs to the Dortmund style, calling it, “a principal type of bottom-fermenting beer” – hardly a beer going out of style. He noted some other characteristics about the beer itself and its production that I will describe later.

Michael Jackson noted in 1977 that, “output seems to be shifting away from the city’s own indigenous style.” He then noted eleven years later that there were five major breweries, but mergers continued. In 1997, Jackson devoted four full pages to the style

HELLES EXPORTBIER

(5 gallons/19 L, all-grain)
OG = 1.053 FG = 1.011
IBU = 27 SRM = 5 ABV = 5.5%



INGREDIENTS

9.5 lbs. (4.3 kg) Pilsner malt
12 oz. (340 g) Vienna malt
6 oz. (170 g) Munich malt
3 oz. (85 g) Caramunich® III malt (55 °L)
4.5 AAU Tettnanger hops (60 min.) (1 oz./28 g at 4.5% alpha acid)
4.5 AAU Tettnanger hops (15 min.) (1 oz./28 g at 4.5% alpha acid)
1 oz. (28 g) Spalt hops (2 min.)
Wyeast 2042 (Danish Lager) or White Labs WLP830 (German Lager) or SafLager W-34/70 yeast
¾ cup corn sugar (if priming)

STEP BY STEP

This recipe uses reverse osmosis (RO) water. Adjust all brewing water to a pH of 5.5 using phosphoric acid. Add 2 g calcium chloride to the mash. If you don't have a gram scale, use 1 tsp. calcium chloride. Don't add minerals to the sparge water, just adjust the pH with the phosphoric acid. We will add more minerals later to the boil.

This recipe uses a single infusion mash. Use enough water to have a moderately thick mash (1.5 qts. per pound of grain or 3.1 L/kg). Mash in the Pilsner, Vienna, and Munich malts at 154 °F (68 °C) and hold for 60 minutes. Add the Caramunich® malt, begin recirculating, raise the mash temperature to 169 °F (76 °C), and recirculate for 15 minutes.

Sparge slowly and use enough water to collect 7 gallons (26.5 L) of wort in the kettle.

Add 4 g calcium sulfate (gypsum) and 6 g calcium carbonate to the boil. If you don't have a gram scale, use 1 tsp. of calcium sulfate and 1 Tbsp. calcium carbonate.

Boil the wort for a total of 90 minutes, adding the three hop ad-

ditions at the times indicated in the ingredients section.

Chill the wort to 50 °F (10 °C), pitch the yeast, and ferment at 52 °F (11 °C) until complete. Rack the beer to a secondary vessel and lager for two to three months at 32 °F (0 °C).

Rack the beer, prime and bottle condition, or keg and force carbonate.

HELLES EXPORTBIER

(5 gallons/19 L, extract with grains)
OG = 1.053 FG = 1.011
IBU = 27 SRM = 5 ABV = 5.5%



INGREDIENTS

7.3 lbs. (3.3 kg) light liquid malt extract
3 oz. (85 g) Caramunich® III malt (55 °L)
4.5 AAU Tettnanger hops (60 min.) (1 oz./28 g at 4.5% alpha acid)
4.5 AAU Tettnanger hops (15 min.) (1 oz./28 g at 4.5% alpha acid)
1 oz. (28 g) Spalt hops (2 min.)
Wyeast 2042 (Danish Lager) or White Labs WLP830 (German Lager) or SafLager W-34/70 yeast
¾ cup corn sugar (if priming)

STEP BY STEP

Use 6.5 gallons (24.5 L) of water in the brew kettle; heat to 158 °F (70 °C).

Turn off the heat. Add the Caramunich® III malt in a mesh bag and steep for 30 minutes. Remove and rinse grains gently.

Add the malt extract and stir thoroughly to dissolve completely. Turn the heat back on and bring up to a boil. Add 1 tsp. calcium chloride, 1 tsp. calcium sulfate, and 1 Tbsp. calcium carbonate to the wort.

Boil the wort for a total of 60 minutes, adding the three hop additions at the times indicated.

Chill the wort to 50 °F (10 °C), pitch the yeast and ferment at 52 °F (11 °C) until complete. Rack the beer to a secondary vessel and lager for two to three months at 32 °F (0 °C).

Rack the beer, prime and bottle condition, or keg and force carbonate.

in his *Beer Companion* and mentioned problems at, “breweries loyal to the local style too long after it had gone out of fashion” including lost sales, and they seemed almost embarrassed about the style. He said locals seemed to be trying to hide it, unaware that the style was well-regarded around the world. He did say that, “some of the most enthusiastic essays into a traditional Dortmunder export style are being made in the United States.”

This is the scene I observed at the time as a budding craft beer enthusiast. Great Lakes Dortmunder Gold, Barrelhouse Duvenick’s Dortmunder, Hoster Gold Top, and Gordon Biersch Golden Export were all being made in Ohio, and Stoudt’s Export Gold from neighboring Pennsylvania gave me a huge range of choices. Of these, only Great Lakes continues with its version as one of its flagship beers. It’s got an unusual crystal malt character, but otherwise fits the style well.

In Germany, it’s basically a regional product, making the name export truly ironic (Wolfgang Kunze agrees, calling the name “misleading”). Competition from Pilsners and other lighter lagers, the image of it being a working man’s drink and lack of local support seems to have made it a bit of a modern anachronism, like milds in England. Yet these are the types of styles that are ripe for rediscovery by craft brewers someday, so I still hold out hope.

SENSORY PROFILE

My characterization that the beer is a cross between a Munich helles and a German Pilsner but a little stronger should set the stage for your overall impression. The malt of a helles and the hops and bitterness of a Pilsner is another good way to think of it, but we can dive a little deeper than that.

Dortmunder is a golden lager, darker than a Pils but a slightly lighter gold than a Munich helles. It is clear, like a lager should be, and has a persistent white head. It has a hoppy and malty aroma, not quite as intense in malt as a helles and not quite as hoppy as a Pilsner. Both malt and hops are moderate, and generally balanced with each other. The flavors of malt and

hops are both similar to helles and Pilsner (doughy-sweet Pils malt, and floral, spicy, herbal noble hops, respectively).

Michael Jackson said the style was mellow, without a bite, full-bodied, and satisfying. I think he’s trying to talk about a fullness and roundness in the finish, without being crisp like a Pilsner. The body is a little fuller, medium to medium-full, than many pale German lagers and it is not highly carbonated . . . say medium at best. But it is a little drier than a helles, due in part to the sulfates in the water. The carbonates and chlorides in the water make the body and palate seem fuller, and the sulfates sharpen the finish a bit but not enough to give it a bite. I’d call the finish medium-dry, but sulfates can sharpen this perception. While the base water has a high mineral content, the finished beer isn’t really mineral-tasting, but you can certainly feel the effects in the body and the finish. However, the beer shouldn’t smell sulfury.

Bitterness levels are moderate, and noticeable; in the range of about 20–30 IBUs. Remember that the perceived bitterness in this style will be lower than the same IBUs in a Pilsner since the finish is more full and rounded. Most sources say the OG of the style is 12.5 °Plato (1.050) or more, often at least 13 °P (1.052). Hmm, may need to bump up the specs in the BJCP guidelines a hair. The alcohol content is at least 5%, often 5.5% or more. I would set the upper limit at 6%, or we start getting into festbier and helles bock range. Bitterness and gravity may be trending lower in remaining German examples, but we should remember it from its classic era.

The beer is thus a balanced lager with both malt and hops evident. The bitterness is high enough to balance the malt, kind of like you’d find in a good Vienna lager. The finish is medium-dry but with a fullness on the palate. The alcohol level is a little stronger than normal German beers but not enough to be a strong beer. Restrained carbonation makes it easier to drink and it is best served around 48–50 °F (9–10 °C) to be able to taste all the flavors.

BREWING INGREDIENTS AND METHODS

When discussing Dortmunder export, many people will first want to talk about the local water since it is a little unusual. It has the most mineral content of common brewing cities, except for Burton, and it is somewhat hard to characterize. Full of everything, which basically makes it the opposite of Pilsen. It is high in carbonates, sulfates, and chlorides, which does have an impact on the flavor profile.

I discovered some interesting clues in both Fred Eckhardt’s *Essentials of Beer Style*, and De Clerck’s *Textbook of Brewing*. Eckhardt mentioned that it was produced with a special type of malt that was germinated longer, but kilned like Pils malt, with increased enzymes. I have never seen this type of malt available, so I must assume it is no longer made. A grain bill using something more than Pils malt would seem to be in order, though. Although Kunze in 2010 suggests it can be produced with Pils malt with up to 1% dark cara-type malt for color. De Clerck in 1957 says that it was produced with a double decoction mash. So I think we have something we can work with, but are likely to be making some approximations.

A considerable percentage of the grist should be Pilsner malt with something to give it a little more color and body. This can be accomplished a few ways, from adding Munich or Vienna malts, to doing as Kunze suggests and using color malt, or performing decoctions. As I mentioned, Great Lakes Brewing adds some crystal 60 malt, but I think this adds an unusual crystal malt flavor to the beer, so I would avoid this as a technique for darkening the color.

When adding richer base malts, I would be careful about making this beer taste too much like a festbier or a helles bock. I think something “extra” in the 10–15% range would work without driving it too much out of style. If you have recipes you like for helles, festbier, and Maibock, you can always compare them for ideas on how to boost maltiness. As far as the amount, I’d shoot for something between a helles and a Pils, but closer to the helles.

Looking over my recipe logs, something around 10% is about right.

As I said, a double decoction appears to be traditional. Normally I recommend that German lagers be step mashed to get good attenuation, but the Dortmunder style has a little more body. Perhaps a single infusion mash around 154 °F (68 °C) would achieve this goal. It's not traditional, but it could help approximate the desired character if you aren't able to do a full double decoction mash.

although I am making some adjustments. Since my lager recipes often use decoctions or other intensive methods, I'm going to give you a break and use a single infusion mash with conversion at 154 °F (68 °C). But I won't compromise on the fermentation and lagering. Rushing this beer will not make it better.

The grist I chose is around 90% German Pilsner malt as the base, with 7% Vienna malt, and 3% Munich malt, with just a touch of CaraMunich® III for

brewing water too much, but since the water profile is noted for this style, I'll build up my brewing water. It's kind of ironic to start with reverse osmosis (RO) water, since my normal water supply is very heavy in carbonates, but it's how I'm used to brewing. I'll add calcium chloride to the mash, but I'll use pH-adjusted RO only for the sparge. Later, I'll add calcium carbonate and calcium sulfate to the boil for flavor effects without affecting the mash pH.

This beer is bolder than your typi-



This is a German lager, so of course you'll want to use a clean-fermenting German lager yeast.



Hopping from the Pilsner school works, so I would look for bittering, flavor, and aroma additions using German noble-type hops like Hallertauer, Tettnanger, and Spalt. If you want to use first wort hopping instead of a bittering and flavor addition, feel free. The hopping in this style is a little more coarse than in a Pilsner, so I'm not sure the refined smoothness from first wort hopping will have much of a sensory effect.

This is a German lager, so of course you'll want to use a clean-fermenting German lager yeast. Nothing special from what I typically recommend in this situation. Selecting something like W-34/70 will work just fine, or another clean fermenting strain that favors a malty finish without producing too much sulfur. Normal lager fermentation schedule and lagering approach are appropriate. I like to pitch the yeast and ferment around 50 °F (10 °C), then lager for two or three months near freezing to allow the yeast to condition the beer.

HOMEBREW EXAMPLE

If you're looking to create your own recipe, you could do worse than just taking your Munich helles recipe, adjusting the starting gravity to 1.052, and hopping it like you do in your German Pils recipe. If you have those recipes, it will get you in the right ballpark.

I approached mine in a similar way,

color. I typically use Best Malz nowadays, but your favorite German malts will work too. Just don't go too bready-biscuity on the base, so I'd avoid the floor-malted Pilsner products. Starting at 1.053 and finishing around 1.011 should give a 5.5% ABV beer, respectable for this style. Somewhere between 25 and 30 IBUs will give it balance, so I'll split the difference with 27.

I often use Hallertauer hops with my Pilsners, so let's go a little earthier and spicier in this working man's drink. Tettnanger and Spalt, it is. I prefer the spicy Tettnanger for flavor and the earthiness of Spalt in the aroma. I'll use a 60-minute bittering addition, and late flavor and aroma additions without anything fancy.

I'm choosing Wyeast 2042 (Danish Lager) as the yeast, which is great if you can find it. I used to use this a lot years ago, then it became a specialty strain. It really is a workhorse yeast, and the lab recommends it for Dortmunder. It comes from the northern part of Europe, closer to Dortmund than many of the southern German strains. If you can't find it, W-34/70 is a good substitute. I'd also consider White Labs WLP833 (German Bock) yeast, the Ayinger strain, as a wildcard option, since Ayinger does make a good Dortmunder-style beer (even though the brewery is outside Munich in the south of Germany).

I don't ordinarily fiddle with my

cal lawnmower beer, but it is meant to reward a hard day's work. So go cross something off your to-do list, then grab a cold one, like life was meant to be. 