SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

KLX Energy Services Holdings, Inc.

(Name of Issuer)

Common Stock, $0.01 Par Value

(Title of Class of Securities)

(CUSIP Number)

Warren G. Lichtenstein
Steel Partners Holdings L.P., 590 Madison Avenue, 32nd Floor
New York, NY, 10022
212-520-2300

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

08/27/2026

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. ☐

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

SCHEDULE 13D

CUSIP No.

1	Name of reporting person STEEL PARTNERS HOLDINGS L.P.
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)
3	SEC use only

4	Source of funds (See Instructions) AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 1,907,172.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 1,907,172.00

11	Aggregate amount beneficially owned by each reporting person 1,907,172.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13	Percent of class represented by amount in Row (11) 8.9 %
14	Type of Reporting Person (See Instructions) PN

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Steel Partners Holdings GP Inc.
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)
3	SEC use only
4	Source of funds (See Instructions) AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by	7	Sole Voting Power 0.00
	8	Shared Voting Power

Each Reporting Person With:

9 Sole Dispositive Power

0.00

10 Shared Dispositive Power

1,907,172.00

11 Aggregate amount beneficially owned by each reporting person

1,907,172.00

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

13 Percent of class represented by amount in Row (11)

8.9 %

14 Type of Reporting Person (See Instructions)

CO

SCHEDULE 13D

CUSIP No.

1 Name of reporting person

SPH Group LLC

2 Check the appropriate box if a member of a Group (See Instructions)

☐ (a)
☐ (b)

3 SEC use only

4 Source of funds (See Instructions)

AF

5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

☐

6 Citizenship or place of organization

DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:

7 Sole Voting Power

0.00

8 Shared Voting Power

1,907,172.00

9 Sole Dispositive Power

0.00

10 Shared Dispositive Power

1,907,172.00

11 Aggregate amount beneficially owned by each reporting person

1,907,172.00

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

13	Percent of class represented by amount in Row (11) 8.9 %
14	Type of Reporting Person (See Instructions) OO

SCHEDULE 13D

CUSIP No.

1	Name of reporting person SPH Group Holdings LLC		
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)		
3	SEC use only		
4	Source of funds (See Instructions) AF		
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐		
6	Citizenship or place of organization DELAWARE		
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00	
	8	Shared Voting Power 1,907,172.00	
	9	Sole Dispositive Power 0.00	
	10	Shared Dispositive Power 1,907,172.00	
11	Aggregate amount beneficially owned by each reporting person 1,907,172.00		
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐		
13	Percent of class represented by amount in Row (11) 8.9 %		
14	Type of Reporting Person (See Instructions) OO		

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Steel Excel Inc.		
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)		
3	SEC use only		
4	Source of funds (See Instructions) AF		
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐		
6	Citizenship or place of organization DELAWARE		
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00	
	8	Shared Voting Power 1,907,172.00	
	9	Sole Dispositive Power 0.00	
	10	Shared Dispositive Power 1,907,172.00	
11	Aggregate amount beneficially owned by each reporting person 1,907,172.00		
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐		
13	Percent of class represented by amount in Row (11) 8.9 %		
14	Type of Reporting Person (See Instructions) CO		

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Steel Connect LLC
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)
3	SEC use only
4	Source of funds (See Instructions)

	AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 1,907,172.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 1,907,172.00

11	Aggregate amount beneficially owned by each reporting person 1,907,172.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13	Percent of class represented by amount in Row (11) 8.9 %
14	Type of Reporting Person (See Instructions) OO

SCHEDULE 13D

CUSIP No.

1	Name of reporting person SP Strategic Holdings LLC
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☐ (b)
3	SEC use only
4	Source of funds (See Instructions) WC
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting	7	Sole Voting Power 0.00
	8	Shared Voting Power 1,907,172.00

Person With:	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 1,907,172.00
11	Aggregate amount beneficially owned by each reporting person 1,907,172.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 8.9 %	
14	Type of Reporting Person (See Instructions) OO	

SCHEDULE 13D

Item 1. Security and Issuer

(a) Title of Class of Securities:

Common Stock, $0.01 Par Value

(b) Name of Issuer:

KLX Energy Services Holdings, Inc.

(c) Address of Issuer's Principal Executive Offices:

3040 POST OAK BOULEVARD, 15TH FLOOR, HOUSTON, TEXAS , 77056.

Item 2. Identity and Background

(a) This statement is filed by Steel Partners Holdings L.P., a Delaware limited partnership ("Steel Holdings"), Steel Partners Holdings GP Inc., a Delaware corporation ("Steel Holdings GP"), SPH Group LLC, a Delaware limited liability company ("SPHG"), SPH Group Holdings LLC, a Delaware limited liability company ("SPHG Holdings"), Steel Excel Inc., a Delaware corporation ("Steel Excel"), Steel Connect LLC, a Delaware limited liability company ("Steel Connect") and SP Strategic Holdings LLC, a Delaware limited liability company ("SP Strategic Holdings"). Each of the foregoing is referred to as a "Reporting Person" and collectively as the "Reporting Persons." Steel Holdings owns a majority of the membership interests of SPHG. SPHG is the sole member of SPHG Holdings. Steel Holdings GP is the general partner of Steel Holdings, the managing member of SPHG and the manager of SPHG Holdings. Steel Excel is a majority owned subsidiary of SPHG Holdings. Steel Connect is an indirect subsidiary of Steel Excel. SP Strategic Holdings is a wholly owned subsidiary of Steel Connect. Accordingly, for purposes of this statement, each of Steel Holdings, SPHG, SPHG Holdings, Steel Holdings GP, Steel Excel and Steel Connect may be deemed to beneficially own the shares of Common Stock, $0.01 par value per share (the "Shares"), owned directly by SP Strategic Holdings. Each Reporting Person disclaims beneficial ownership of the Shares owned directly by another Reporting Person. Set forth in Exhibit 1 attached hereto ("Exhibit 1") is the name and present principal business, occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted of (i) the executive officers and directors of Steel Holdings GP, (ii) the executive officers and directors of Steel Excel, (iii) the executive officers and managers of Steel Connect, and (iv) the executive officers of SP Strategic Holdings. To the best of the Reporting Persons' knowledge, except as otherwise set forth herein, none of the persons listed in Exhibit 1 beneficially owns any securities of the Issuer or is a party to any contract, agreement or understanding required to be disclosed herein.

(b) The principal business address of the Reporting Persons is 590 Madison Avenue, 32nd Floor, New York, NY 10022.

(c) Steel Holdings is a global diversified holding company that engages or has interests in a variety of operating businesses through its subsidiary companies. The principal business of SPHG Holdings is holding securities for the account of Steel Holdings. The principal business of SPHG is serving as the sole member of SPHG Holdings and other affiliates. The principal business of Steel Holdings GP is serving as the general partner of Steel Holdings, the managing member of SPHG and the manager of SPHG Holdings. The principal business of Steel Excel is serving as a global diversified company that engages or has interests in a variety of operating businesses. The principal business of Steel Connect is serving as a holding company whose wholly owned subsidiary, ModusLink Corporation, serves the supply chain management market. The principal business of SP Strategic Holdings is holding securities for the account of Steel Connect.

(d) No Reporting Person, nor any person listed in Exhibit 1, has, during the last five years, been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) No Reporting Person, nor any person listed in Exhibit 1, has, during the last five years, been party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Each of the individuals who are listed in Exhibit 1 is a citizen of the United States of America. Each of the entities that are Reporting Persons are organized under the laws of the State of Delaware.

Item 3. Source and Amount of Funds or Other Consideration

The aggregate purchase price of the 1,907,172 Shares owned directly by SP Strategic Holdings is approximately $2,920,401, including brokerage commissions. Such Shares were acquired with SP Strategic Holdings' cash on hand.

Item 4. Purpose of Transaction

On August 24, 2026, the Issuer distributed to all holders of record of Shares as of 5:00 p.m., New York City time, on August 21, 2026 (the "Record Date") one transferable subscription right (each, a "Right") for each Share held as of the Record Date (the "Rights Offering"). Each Right entitles the holder thereof, subject to certain limitations, to purchase 3.885 Shares, rounded down to the nearest whole Share, at a subscription price of $1.49 per share (the "Subscription Price"); provided, that any holder that exercises its basic subscription rights in full will have an over-subscription privilege to purchase additional Shares that remain unsubscribed as of September 23, 2026 (the "Expiration Date"), subject to certain limitations. The Issuer reserves the right, in its sole and absolute discretion, to amend, extend or cancel the Rights Offering at any time for any reason prior to the Expiration Date. If the Rights Offering is canceled, all subscription payments received by the subscription agent will be returned, without interest or penalty, as soon as practicable to those holders who subscribed for Shares in the Rights Offering. In connection with the Rights Offering, on August 24, 2026, SP Strategic Holdings received 766,118 rights. SP Strategic Holdings purchased 1,086,121 Rights following the Record Date. Accordingly, as of the date hereof, SP Strategic Holdings holds 1,852,239 Rights and is entitled to purchase an aggregate of 7,195,948 Shares at the Subscription Price upon the exercise the Rights, subject to the completion of the Rights Offering. The Reporting Persons purchased the Shares and the Rights based on the Reporting Persons' belief that the Shares and the Rights, when purchased, were undervalued and represented an attractive investment opportunity. Depending upon overall market conditions, other investment opportunities available to the Reporting Persons, and the availability of Shares at prices that would make the purchase or sale of Shares desirable, the Reporting Persons may endeavor to increase or decrease their position in the Issuer through, among other things, the purchase or sale of Shares on the open market or in private transactions or otherwise, on such terms and at such times as the Reporting Persons may deem advisable. No Reporting Person has any present plan or proposal which would relate to or result in any of the matters set forth in subparagraphs (a) - (j) of Item 4 of Schedule 13D except as set forth herein or such as would occur upon or in connection with completion of, or following, any of the actions discussed herein. The Reporting Persons intend to review their investment in the Issuer on a continuing basis. Depending on various factors, including, without limitation, the Issuer's financial position and strategic direction, the price levels of the Shares, conditions in the securities markets and general economic and industry conditions, other investment opportunities available to the Reporting Persons, and the outcome of any discussions referenced herein, the Reporting Persons may in the future take such actions with respect to their investment in the Issuer as they deem appropriate, including, without limitation, engaging in communications and negotiations with management and the Issuer's Board of Directors, engaging in discussions with stockholders of the Issuer or third parties (including potential financing sources), exchanging information with the Issuer or any such persons pursuant to appropriate confidentiality or similar agreements regarding any of the foregoing, purchasing additional Shares, selling some or all of their Shares, engaging in short selling of or any hedging or similar transaction with respect to the Shares, or changing their intention with respect to any and all matters referred to in Item 4. The Reporting Persons may also take steps to explore and prepare for various plans and actions, and propose transactions, before forming an intention to engage in such plans or actions or proceed with such transactions.

Item 5. Interest in Securities of the Issuer

(a) The aggregate percentage of Shares reported owned by each person named herein is based upon 21,428,722 Shares outstanding, which is the total number of Shares outstanding as of August 21, 2026, as reported in the Issuer's Prospectus Supplement filed with the Securities and Exchange Commission on August 24, 2026. As of the close of business on the date hereof, SP Strategic Holdings owned directly 1,907,172 Shares, constituting approximately 8.9% of the Shares outstanding. By virtue of their relationships with SP Strategic Holdings, each of Steel Holdings, SPHG, SPHG Holdings, Steel Holdings GP, Steel Excel and Steel Connect may be deemed to beneficially own the Shares owned directly by SP Strategic Holdings.

(b) Each of Steel Holdings, SPHG, SPHG Holdings, Steel Holdings GP, Steel Excel and Steel Connect may be deemed to have shared power to vote and dispose of the Shares reported in this statement owned directly by SP Strategic Holdings.

(c) The transactions in the Shares by SP Strategic Holdings during the past sixty days are set forth in Exhibit 2 and are incorporated herein by reference. All of such transactions were effected in the open market.

(d) No person other than the Reporting Persons is known to have the right to receive, or the power to direct the receipt of dividends from, or proceeds from the sale of, the Shares.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer

As described in Item 4 above, SP Strategic Holdings has purchased an aggregate of 1,086,121 Rights. Such Rights were purchased for an aggregate price of approximately $135,520 and entitle SP Strategic Holdings to purchase an aggregate of 4,219,580 Shares at the Subscription Price upon the exercise of the Rights, subject to the completion of the Rights Offering. On the date hereof, the Reporting Persons entered into a Joint Filing Agreement in which the Reporting Persons agreed to the joint filing on behalf of each of them of statements on Schedule 13D with respect to securities of the Issuer. A copy of this agreement is attached as Exhibit 99.1 hereto and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

1 - Directors and Officers 2- Transactions in Securities 99.1 - Joint Filing Agreement by and among the Reporting Persons, dated September 3, 2026

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

STEEL PARTNERS HOLDINGS L.P.

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary of Steel Partners Holdings GP Inc., its General Partner
Date: 09/03/2026

Steel Partners Holdings GP Inc.

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary
Date: 09/03/2026

SPH Group LLC

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary of Steel Partners Holdings GP Inc., its Managing Member
Date: 09/03/2026

SPH Group Holdings LLC

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary of Steel Partners Holdings GP Inc., its Manager
Date: 09/03/2026

Steel Excel Inc.

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary
Date: 09/03/2026

Steel Connect LLC

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary
Date: 09/03/2026

SP Strategic Holdings LLC

Signature: /s/ Maria Reda
Name/Title: Maria Reda, Secretary
Date: 09/03/2026

Exhibit 1

Executive Officers and Directors of Steel Partners Holdings GP Inc.

Name and Position	Present Principal Occupation	Business Address
Warren G. Lichtenstein, Executive Chairman and Director	Executive Chairman of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Jack L. Howard, President and Director	President of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Lon Rosen, Director	Executive Vice President and Chief Marketing Officer for the Los Angeles Dodgers	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
James Benenson III, Director	Director and Co-President of Summa Holdings, Inc. ("Summa"), a holding company, and director and Co-President of Industrial Manufacturing Company and Industrial Manufacturing Company International, subsidiaries of Summa that own various diversified industrial businesses	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Eric P. Karros, Director	Television analyst for FOX Sports and works for the Los Angeles Dodgers	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Rory H. Tahari, Director	Co-founder, State of Mind Partners, a strategic branding and investment firm	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Joseph Martin, Chief Operating Officer and Chief Legal Officer	Chief Operating Officer and Chief Legal Officer of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022

Executive Officers and Directors of Steel Excel Inc.

Name and Position	Present Principal Occupation	Business Address
Jack L. Howard, President and Director	President of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022

Executive Officers and Managers of Steel Connect LLC

Name and Position	Present Principal Occupation	Business Address
Jack L. Howard, Manager	President of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022

Executive Officers of SP Strategic Holdings LLC

Name and Position	Present Principal Occupation	Business Address
Jack L. Howard, President	President of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022
Joseph Martin, Senior Vice President	Chief Operating Officer and Chief Legal Officer of Steel Partners Holdings GP Inc., the General Partner of Steel Partners Holdings L.P., a global diversified holding company	c/o Steel Partners Holdings L.P. 590 Madison Avenue, 32nd Floor New York, NY 10022

Transactions in the Shares During the Past 60 Days

Class of Security	Securities Purchased	Price ($)	Date of Purchase
	SP STRATEGIC HOLDINGS LLC		
Common Stock	607,620	$1.4979	08/11/2026
Common Stock	33,061	$1.5451	08/12/2026
Common Stock	125,437	$1.5059	08/24/2026
Common Stock	100,000	$1.4857	08/25/2026
Common Stock	172,736	$1.5094	08/26/2026
Common Stock	200,000	$1.5300	08/27/2026
Common Stock	200,000	$1.5275	08/28/2026
Common Stock	200,000	$1.5387	08/31/2026
Common Stock	20,428	$1.5399	09/01/2026
Common Stock	133,010	$1.5257	09/02/2026
Common Stock	114,880	$1.5253	09/03/2026

Exhibit 99.1

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1)(iii) under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them of a Statement on Schedule 13D (including amendments thereto) with respect to the Common Stock, $0.0001 par value, of KLX Energy Services Holdings, Inc. This Joint Filing Agreement shall be filed as an Exhibit to such Statement.

STEEL PARTNERS HOLDINGS L.P.

By: /s/ Maria Reda
Maria Reda, Secretary of Steel Partners Holdings GP Inc., its General Partner
Date: 09/03/2026

Steel Partners Holdings GP Inc.

By: /s/ Maria Reda
Maria Reda, Secretary
Date: 09/03/2026

SPH Group LLC

By: /s/ Maria Reda
Maria Reda, Secretary of Steel Partners Holdings GP Inc., its Managing Member
Date: 09/03/2026

SPH Group Holdings LLC

By: /s/ Maria Reda
Maria Reda, Secretary of Steel Partners Holdings GP Inc., its Manager
Date: 09/03/2026

Steel Excel Inc.

By: /s/ Maria Reda
Maria Reda, Secretary
Date: 09/03/2026

Steel Connect LLC

By: /s/ Maria Reda
Maria Reda, Secretary
Date: 09/03/2026

SP Strategic Holdings LLC

By: /s/ Maria Reda
Maria Reda, Secretary
Date: 09/03/2026