Spanning Tree Game

A spanning tree T in a graph $G = (V, E)$ is a set of edges without any cycles that connect all vertices together. The spanning tree game is a 2-player game. Each player in turn selects an edge. Player 1 starts by deleting an edge, and then player 2 fixes an edge (which has not been deleted yet); an edge fixed cannot be deleted later on by the other player. Player 2 wins if he succeeds in constructing a spanning tree of the graph; otherwise, player 1 wins.

Which graphs have a winning strategy for player 1? Which graphs have a winning strategy for player 2.

Let's play on the following graph with 16 vertices and 30 edges: